4-176

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1887.

No. 225.

JAMES FORNCROOK, APPELLANT,

vs.

AMOS I. ROOT.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF OHIO.

FILED MAY 4, 1885.

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JUDD & DETWEILER, PRINTERS, WASHINGTON, AUGUST 19, 1887.

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1 Pleas in the circuit court of the United States for the northern district of Ohio, eastern division, held at the United States court-rooms, in the city of Cleveland, in the district aforesaid, before the Honorable Stanley Matthews, associate justice of the Supreme Court of the United States assigned to the sixth circuit, at the April term of said court, in the year of our Lord one thousand eight hundred and eighty-four, and in the one hundred and ninth year of the Independence of the United States of America.

AUGUSTUS J. RICKS, *Clerk.*

2 Be it remembered that heretofore, to wit, on the 5th day of April, A. D. 1883, the following bill of complaint was filed in the clerk's office of said court, being in the words and figures following, viz:

Bill.

In the Circuit Court of the United States for the Northern District of Ohio. In Equity.

JAMES FORNCROOK *vs.* AMOS I. ROOT.

To the honorable the judges of the circuit court of the United States for the northern district of Ohio:

James Forncrook, of Watertown, in the State of Wisconsin, and a citizen of the State of Wisconsin, brings this his bill of complaint against Amos I. Root, of Medina, in said northern district of Ohio, and a citizen of the State of Ohio.

And thereupon your orator complains and says—

1st. That heretofore and before the 28th day of June, 1881, your orator was the original and first inventor of a new and useful improvement in sectional honey frames, not known or used by others before the invention thereof by him, and which was not, at the time of his application for a patent therefor, as hereinafter mentioned, in public use or on sale with his consent or allowance and not in public use or on sale for more than two years prior to his application for a patent therefor; that being such inventor your orator made application to the Commissioner of Patents of the

3 United States, in accordance with the laws of the United States, and thereafter, on the 28th day of June, 1881, your orator did obtain letters patent of the United States, sealed and executed in due form of law and bearing date the day and year last aforesaid, whereby there was secured to your orator for the term of seventeen years from the date of said letters patent the full and exclusive right of making, constructing, using, and vending to others to be used the said improvement throughout the United States and the Territories thereof, and by virtue thereof he became and was the sole owner of all the rights and privileges granted and secured or intended to be granted and secured by said letters patent; that the said letters patent were signed by the Secretary of the Interior and were countersigned and sealed with the seal of the Patent Office, and were numbered 243,674, as by the original, or a duly certified copy thereof, in court to be produced, of which prof-ert is hereby made, will more fully and at large appear.

2nd. And your orator further shows unto your honors that thereafter the said invention was put into use, and that by virtue of the premises your orator became and now is the sole and exclusive owner of said letters patent and the invention and improvement described therein and of all the rights and privileges granted and secured or intended to be granted and secured thereby, and that the invention patented in said letters patent is of great value to your orator and of great advantage to the public, and that the rights of your orator in said invention and to its exclusive possession and enjoyment have been acknowledged and acquiesced in by the public, except by said defendant and his vendee; and your orator believes that he will realize large profits from said invention if in-
4 fringements by said defendant and his confederates shall be prevented.

3rd. And your orator further shows unto your honors upon information and belief that since the grant to your *your* orator of said letters patent and before the commencement of this suit the defendant, Amos I. Root, well knowing the premises and the rights and privileges secured to your orator as aforesaid, and contriving to injure your orator and deprive him of the profits and advantages which might and otherwise would have accrued to him without the license or allowance and against the will of your orator, and in infringement of said letters patent, unlawfully and wrongfully and in defiance of the rights of your orator, at Medina, in said northern district of Ohio, and at other places in the United States, has made, used, and sold to others to be used, and is now making, using, and selling to others to be used, large numbers of sectional honey frames made according to and embodying in their construction and operation the said invention and improvement of your orator described and claimed in said letters patent, and still continues to make, use, and sell, and threatens to continue to make, use, and sell to others to be used, said articles embodying said invention and improvement patented as aforesaid.

4th. And your orator further shows unto your honors that what number of articles or apparatus made in infringement of said letters patent have been made and sold by said defendant your orator does not know and cannot state, but upon information and belief your orator avers that said defendant has made, used, and sold and is now making, using, and selling large numbers of the same, and that he has derived and received and is still deriving and receiv-
5 ing from such manufacture and sales great gains and profits, but to what extent and exactly how much your orator does not know, and prays a discovery thereof.

5th. And your orator further shows unto your honors that he has caused notice to be given to said defendant of said infringements and of the rights of your orator in the premises, and requested him to desist and refrain therefrom, but the said defendant has disregarded said notice and refused to desist from said infringement, and still continues to make, use, and sell said infringing articles or apparatus.

6th. And your orator avers that all said acts and doings are contrary to equity and good conscience, and tends to the manifest wrong and injury of your orator in the premises. In consideration whereof and forasmuch as your orator can only have adequate relief in this honorable court, where such matters are cognizable, your orator prays—

First. That said defendant, Amos I. Root, may be compelled by a decree of this court to account for and pay over to your orator all the gains and profits which have accrued to or have been received by said defendant, or to which he may be entitled by reason of such manufacture or sale of articles or apparatus made in infringement of said letters patent, and all such gains and profits as your orator would have received but for the unlawful acts and doings of him, the said defendant, and that said defendant pay the damages your orator has sustained by reason of such infringements, and that your honors shall assess said damages or cause the same to be assessed, and that your honors may increase the actual damages so assessed to a sum equal to three times the amount of said assessment
6 under the circumstances of the wilful and unjust infringements by said defendant, as hereinbefore set forth.

Second. That the said defendant, Amos I. Root, his attorneys, solicitors, agents, servants, and workmen, may be enjoined pending this suit, and also may be perpetually enjoined and restrained by the order and injunction of this honorable court from directly or indirectly making or causing to be made or using or selling or vending to others to be used in any manner any articles or apparatus embodying the invention or improvement patented in said letters patent or any part thereof, and from infringing upon or violating said letters patent, in respect of the exclusive rights of your orator.

Third. That the said defendant, Amos I. Root, may be decreed to pay the costs of this suit.

Fourth. That your orator may have such other and further relief as to this honorable court shall seem meet and as shall be agreeable to equity.

To the end, therefore, that said defendant may, if he can, show why your orator should not have the relief hereby prayed and make a full, direct, and perfect answer to all and singular the several matters hereinbefore averred and set forth as fully and particularly as if severally and especially interrogated as to each of said matters:

May it please your honors to grant unto your orator the writ of injunction, as well provisionally as perpetually, issuing out of and under the seal of this honorable court, commanding, enjoining, and restraining the said defendant, Amos I. Root, his attorneys, solicitors, agents, servants, and workmen, and each and every of them, as hereinbefore in that behalf prayed.

7 May it please your honors to grant unto your orator the writ of subpœna issuing out of and under the seal of this honorable court, directed to said defendant, Amos I. Root, commanding him, by a certain day and under a certain penalty, to be and appear in this honorable court, then and there to make answer to this

bill and to abide such order and decree as may be made against him and as shall be agreeable to equity and good conscience.

And your orator will ever pray, etc.

JAMES FORNCROOK.

WILLIAM P. WELLS,
Sol'r and Counsel for Complainant.

STATE OF WISCONSIN, } ss:
County of Jefferson, }

On this thirteenth day of March, A. D. 1883, before me, a notary public in and for said county and State, personally appeared James Forncrook and made oath that he has read the foregoing bill of complaint subscribed by him, and that the same is true of his own knowledge, except as to the matters therein stated to be on his information and belief, and as to those matters he believes it to be true.

[SEAL.] FRANK B. TUTTLE,
Notary Public, Jefferson Co., Wisconsin.

And afterwards, to wit, on the fifth day of April, A. D. 1883, the following subpœna was issued in said cause from the clerk's office of said court, viz:

Subpœna.

THE UNITED STATES OF AMERICA, } ss:
Northern District of Ohio, Eastern Division, }

8 The President of the United States of America to the marshal of the northern district of Ohio, Greeting:

You are hereby commanded to summon Amos I. Root, if he may be found in your district, to be and appear in the circuit court of the United States within and for the district aforesaid, at Cleveland, on the first Monday in May next, to answer a certain bill in chancery filed and exhibited in said court against him by James Forncrook. Hereof he is not to fail under the penalty of the law thence ensuing, and have you then and there this writ.

Witness the Honorable Morrison R. Waite, Chief Justice of the United States, this fifth day of April, A. D. 1883, and in the 107th year of the Independence of the United States of America.

A. J. RICKS, *Clerk,*
By O. C. BEATTY, *Deputy Clerk.*

MEMORANDUM.—The said defendant is required to enter his appearance in this suit in the clerk's office of said court on or before the first Monday of May, 1883; otherwise the said bill may be taken *pro confesso.*

A. J. RICKS, *Clerk.*

Fifty dollars has been deposited as security for all costs for which the complainant may be liable in this suit.

And afterwards, to wit, on the 10th day of April, A. D. 1883, the following return was made and subpœna filed, viz:

NORTHERN DISTRICT OF OHIO, *ss:*

On the 9th day of April, 1883, at Medina, Ohio, I delivered to the within-named Amos I. Root a true and duly certified copy of this writ.

W. F. GOODSPEED, *U. S. Marshal,*
By JOHN ODELL, *Deputy.*

Endorsed: Returnable May 7th, 1883. Rule day for ap-
9 pearance, May 7th, 1883; rule day for answer, June 4th, 1883. Returned and filed April 10th, 1883. A. J. Ricks, clerk.

And afterwards, to wit, on the 20th day of April, A. D. 1883, the following entry of appearance was filed in said cause in said court, viz:

Appearance of Defendant.

In the Circuit Court of the United States for the Northern District of Ohio. In Equity.

JAMES FORNCROOK *against* AMOS I. ROOT.

To clerk of said court:

Please enter my appearance as the attorney for the defendant, Amos I. Root, in the above-entitled action.

Cleveland, O., April 19, 1883.

J. A. OSBORNE,
190 *Superior St.*

And afterwards, to wit, on the 4th day of July, A. D. 1883, the following answer was filed in said cause in said court, viz:

Answer.

In the Circuit Court of the United States for the Northern District of Ohio, Eastern Division.

JAMES FORNCROOK *against* AMOS I. ROOT.

The answer of Amos I. Root to the bill of complaint of James Forncrook, complainant.

This defendant, now and at all times hereafter saving and reserving to himself all manner of benefit and advantage of exception to the errors and insufficiencies contained in the bill of complaint of said complainant, for answer thereunto saith:

1. That he has been informed and admits to be true that upon application by the complainant letters patent of the United States were granted and issued to said James Forncrook on the 28th
10 day of June, 1881, for an alleged combination and improvement in se-tional honey frames formed of a single piece of

wood having transverse triangular or V-shaped grooves, longitudinal guide groove for fastening in foundation and recesses; and this defendant says he does not know and is not informed, save by said bill of complaint, whether or not the said James Forncrook did properly make application for said patent and did comply with all the requirements of law and did have said patent issued to him in due form of law, and leaves the complainant to make such proof thereof as he shall be advised is material.

2. And this defendant, further answering, denies that the said alleged invention so patented to the said James Forncrook is of great or of any value or utility or that the same is new or novel or that the public generally or any portion thereof has acquiesced in and acknowledged the complainant's exclusive right to the same or any part thereof.

3. And this defendant, further answering, says that he is informed, and believes it to be true and alleges it as the fact, that the said invention and discovery and substantially the same principle and combination and all the material parts thereof patented in and by the letters patent mentioned in the bill of complaint of complainant was mentioned and described in a printed publication—that is to say, in a printed book, the title and description of which is as follows:

"Manuel of the Apiary, by A. J. Cook, professor of entomology in the Michigan Agricultural College, second edition," published at Chicago, Illinois, by Thomas G. Newman & Son in the month of May, A. D. 1878, a publication published, issued, and publicly circulated and distributed prior to the supposed invention and discovery by said James Forncrook, patentee aforesaid of the said alleged
11 invention, discovery, principle, combination, and improvement, the said description being on pages one hundred and forty-four and one hundred and forty-five of said publication.

4. This defendant also, for further answer, says that the said invention and discovery and substantially the same principle and combination and all the material parts thereof patented in and by said letters patent mentioned in complainant's bill of complaint was mentioned and described in a printed publication—that is to say, in "Gleanings in Bee Culture, or how to realize the most money with the smallest expenditure of capital and labor in the care of bees, rationally considered," published by A. I. Root, at Medina, Ohio, in April, 1876, a publication published, issued, and publicly circulated and distributed prior to the supposed alleged invention, discovery, and improvement by James Forncrook, the complainant, of the said alleged invention, discovery, principle, improvement, and combination, the said description being on page 76 of said publication.

5. Also this defendant saith that he is informed, and believes it to be true and alleges it as a fact, that the said invention and substantially the same principle and combination and the material parts thereof patented in and by said letters patent issued to complainant was mentioned and described in a printed publication—that is to say, in "The American Bee Journal" for the month of October, 1877, published at Chicago, Illinois, by Thomas G. Newman & Son, a publication published, issued, and publicly distributed

and circulated prior to the supposed alleged invention and discovery by the complainant of the said alleged invention, principle, and combination, the said description being on page 349 of said publication.

12 6. Defendant also says that said invention and discovery and substantially the same principle and combination and the material parts thereof patented in and by said letters patent issued to complainant was mentioned and described in a printed publication—that is to say, in Gleanings in Bee Culture, published at Medina, Ohio, by A. I. Root in the month of February, 1879, a publication published, issued, and publicly circulated and distributed prior to the supposed alleged invention and discovery by the complainant of the said alleged invention, principle, improvement, and combination, the said description being on pages 72 and 73 of the said publication.

7. This defendant, further answering, says that he is informed, and believes it to be true and alleges it as the fact, that the said invention and discovery and all the substantial*ly* and material parts thereof patented in and by the letters patent mentioned in the bill of complaint aforesaid was described and fully set forth in a letters patent issued December 8, 1874, to Louise Hutchins, of East Livermore, Maine, as the assignee of H. Wesley Hutchins, of Livermore Falls, in the State of Maine, and the specifications thereto annexed, and prior to the supposed alleged invention, discovery, combination, and improvement thereof by the said complainant, James Forncrook, said patent issued to said Hutchins being numbered 157,473.

8. And this defendant, further answering said bill of complaint, denies that said James Forncrook is the original and first inventor and discoverer of the invention, combination, and improvement patented in and by said letters patent mentioned in complainant's bill of complaint or of any substantial or material part thereof, and says that the same thing and substantially the same invention, combination, improvement, and principle and the material parts thereof was known to Professor A. J. Cook, who resides at

13 Lansing, in the State of Michigan, as early as the month of June, 1877, and to Alexander Fiddes, who resides at Centralia, in the State of Illinois, as early as May or June, 1873, and to this defendant, Amos I. Root, residing at Medina, Ohio, as early as April, 1876, and was invented and combined by and was known to Arber Tebbit, residing at Medina, Ohio, as early as 1878, and was known to J. McGonnell, who resides at Waterford, Erie county, Pennsylvania, as early as 1869, and to Mr. Stevenson, of Oil City, Pennsylvania, as early as 1869, and to Southard and Ranney, of Kalamazoo, Michigan, and to Thomas G. Newman, of Chicago, Illinois, as early as September, 1877, and to H. W. Hutchins, of Livermore Falls, in the State of Maine, as early as 1873, all being prior to the time of the alleged discovery, invention, and improvement by said James Forncrook as stated in his aforesaid bill of complaint.

9. And this defendant, further answering, says that the same principle and combination and the substantial and material parts

thereof patented in and by the letters patent mentioned in said bill of complaint was in public use in the United States at the residence of this defendant, A. J. Root, at Medina, Ohio, and he is informed and believes, and alleges as the fact, that the same was in public use in the United States at the residence of A. J. Cook, Lansing, Michigan; Alexander Fiddes, Centralia, Illinois; Rev. Mrs. Coltorn, Centralia, Illinois; J. McGonnell, Waterford, Penn.; Mr. Stevenson, Oil City, Pennsylvania; M. Quimby, St. Johnsville, New York, and Southard and Ranney, Kalamazoo, Michigan, as early as 1876, and has been in use at all of said places more than two years before the supposed invention and improvement of complainant and before the application of said complainant for a patent, and was in
14 use at all said places, as defendant believes, at the time of said Forncrook's application for a patent as aforesaid.

10. This defendant, further answering, says that prior to the date of the application of said James Forncrook for a patent as stated in his bill of complaint the said alleged invention, combination, and improvement patented in and by said letters patent was by the said James Forncrook abandoned to the public and dedicated by him to the public, and was, with the consent and allowance of the said James Forncrook, in public use and on public sale at the manufacturing establishment of Lewis and Parks, in Watertown, in the State of Wisconsin, and elsewhere prior to his said application for a patent.

11. And this defendant, further answering, says that the sectional honey frame manufactured, used, and sold by this defendant is different in kind and construction from that described in the said letters patent issued to the complainant and in the specifications thereto annexed, and is made by a different process, and is of a different method and principle from that described in said specifications, and that he does not now and never has infringed upon the said alleged rights and privileges of said complainant, and he denies that he has ever contrived to injure the said complainant or to defraud him in any way; and this defendant denies that he has at any time heretofore manufactured, sold, offered for sale, or used or is now manufacturing, selling, offering for sale, or using in said northern district of Ohio or elsewhere any sectional honey frames manufactured in accordance with the description set forth in said letters patent issued to complainant or the specifications thereto annexed, and that he has not in any way infringed and does
15 not now in any way infringe said alleged patent.

12. And this defendant, further answering, denies that there is any other matter, cause, or thing in the said complainant's bill of complaint contained material or necessary for this defendant to make answers unto and not herein and hereby well and sufficiently answered, confessed, traversed, avoided, and denied that is true to the knowledge or belief of this defendant; all which matters and things this defendant is ready and willing to aver, maintain, and prove as this honorable court shall direct; and this defendant here denies all the matters, causes, and things in said bill of complaint not herein specifically denies, and prays that he may be hence dismissed

with his reasonable costs and charges in this behalf most wrongfully sustained.

A. I. ROOT.

J. A. OSBORNE,
Solicitor and of Counsel for Defendant.

STATE OF OHIO, } ss:
Medina County, }

Amos I. Root personally appeared before me, a notary public in and for said county and State, and, being duly sworn, deposes and says that he is the defendant named in the foregoing answer subscribed by him; that he has read the same and knows the contents thereof, and that all the allegations therein contained are true of his own knowledge, except as to the matters therein stated on information and belief, and as to those matters he believes them to be true.

A. I. ROOT.

Subscribed and sworn to before me by said Amos I. Root this 24th day of May, A. D. 1883.

THOS. S. SHAW,
Notary Public in and for the County of Medina and State of Ohio.

16 And afterwards, to wit, on the 5th day of July, A. D. 1883, the following replication was filed in said cause in said court, viz:

Replication.

In the Circuit Court of the United States for the Northern District of Ohio, Eastern Division. In Equity.

JAMES FORNCROOK *vs.* AMOS I. ROOT.

The replication of James Forncrook, complainant, to the answer of Amos I. Root, defendant.

This repliant, saving and reserving to himself, now and at all times hereafter, all and all manner of benefit and advantage of exception which may be had or taken to the manifold insufficiencies of the said answer, for replication thereunto, says that he will aver, maintain, and prove his bill of complaint to be true, certain, and sufficient in the law to be answered unto, and that the said answer of the said defendant is uncertain, untrue, and insufficient to be replied unto by this repliant, without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied unto and not herein and hereby well and sufficiently replied unto, confessed and avoided, traversed or denied, is true; all which matters and things this repliant is and will be ready to aver, maintain, and prove as this honorable court shall direct, and humbly prays as in and by his said bill he has already prayed.

WILLIAM P. WELLS,
Solicitor for Complainant.

17 And afterwards, to wit, on the 5th day of October, being a day of the October term, A. D. 1883, before the Honorable Martin Welker, district judge, the following order was entered in this cause in said court, viz:

JAMES FORNCROOK
vs.
AMOS I. ROOT. } No. 4206.

In this case, by consent of parties, time for taking proofs is extended to December 1st, 1883.

And afterwards, to wit, on the 10th day of October, A. D. 1883, the following entry of appearance was filed in said cause in said court, viz:

Entry of Appearance of M. D. Leggett.

In the United States Circuit Court for the Northern District of Ohio.
In Equity.

J. FORNCROOK *vs.* A. I. ROOT.

To A. J. Ricks, Esq., clerk of the U. S. circuit court:

Please enter our name as solicitors for defendant in the above-entitled case.

Respectfully, &c., M. D. LEGGETT & CO.

And afterwards, to wit, on the 19th day of October, A. D. 1883, the following stipulation was filed in said cause in said court, viz:

Stipulation.

The Circuit Court of the United States for the Northern District of Ohio. In Equity.

JAMES FORNCROOK, Comp't, *vs.* AMOS I. ROOT, Def't.

18 In this cause it is stipulated that the testimony of Alfred H. Newman and Melville E. Dayton, witnesses to be produced on behalf of the complainant in said cause, may be taken before Merrit H. Dement, a notary public in and for the county of Cook, in the State of Illinois, at Chicago, in said county and State, all objections to the form and manner of taking the same being waived, but subject to objections for competency and relevancy only.

Dated at Chicago this 22nd day of September, A. D. 1883.

WM. P. WELLS,
Sol'r for Comp't.
J. A. OSBORNE,
Att'y for A. J. Root.

And afterwards, to wit, on the 15th day of January, A. D. 1884, the following stipulation was filed in said cause in said court, viz:

Stipulation.

United States Circuit Court, Northern District of Ohio. In Equity.

JAMES FORNCROOK *vs.* AMOS I. ROOT.

In this cause it is stipulated that the time to take testimony therein shall be extended until February fifteenth (15th), 1884, and an order may be entered in said cause in accordance with this stipulation.

Dated January 15th, A. D. 1884.

WM. P. WELLS,
Sol. for Comp't.
M. D. LEGGETT,
Sol. for Def't.

And afterwards, to wit, on the 6th day of August, being a day of the April term, A. D. 1884, of said court, the following opinion was filed in said cause in said court, viz:

19 Circuit Court of the United States, Northern District of Ohio.
In Equity.

JAMES FORNCROOK
vs.
AMOS I. ROOT. } No. 4206.

This is a bill in equity to restrain the alleged infringement of letters patent No. 243,674, granted June 28, 1881, to the complainant, James Forncrook, of Watertown, Wisconsin, for a new and useful improvement in sectional honey frames, and for an account, &c.

The claim of the patent is as follows: "As a new article of manufacture, a blank for honey frames formed of a high piece of wood having transverse angular grooves *c*, longitudinal groove *d*, and recesses *b*, all arranged in the manner shown and described." As set out in the specifications, "this invention relates to an improvement in sectional honey frames, the object being to so construct them that they shall be stronger and in a more portable form than the frames now used for such purpose; and the invention consists essentially in forming the frame from a high blank or piece of material having all the necessary grooves and recesses required to form a complete frame cut in it, the ends of the blank being notched or dented and angular grooves cut across it at those points which are to form the corners. Those blanks, after being thus prepared, may be packed solidly in boxes or otherwise for transportation, and when required for use are bent into the square form and their ends united at one of the corners by means of the interlocking notches or teeth, thus forming a complete frame ready for use." It is further stated
20 that "the blanks for these frames are preferably formed from some light, tasteless, and comparatively tough wood, which will bend at the corners without steaming or boiling, such

as bass wood or white wood, the material being produced by cutting it from the log in the form of a thick veneer or by sawing into thin stuff and then planing both surfaces. The blanks are then cut from this material of the proper width and length, the ends dentated, as shown at *a a*, by means of a series of circular saws placed close together upon an arbor or other suitable tool, so that they will interlock when brought together. The recesses *b b* are then formed in its edges at such points in its length as will bring them at the top and bottom of the frames when set up in the hive. These recesses form openings which allow space for the passage of the bees between the frames and for the ventilation of this part of the hive. Three triangular grooves, *c c c*, are then cut across the blank at such points in its length as will divide it into four nearly equal parts, each of which forms one side of the frame after the blank is bent into a quadrangular shape. These triangular grooves are cut nearly through the blank, sufficient wood only being left to hold the parts firmly together. As the sides of the groves *c* are inclined toward each other at a right angle it follows that when the blank is bent into the form of a frame those grooves make perfectly-fitting miter joints at three of its corners, the fourth corner being that at which the ends of the blank are riveted to each other by means of the interlocking teeth found thereon. In one of the spaces between two of the grooves *c*, and preferably that which will form the top of the frame when placed in the hive, is formed a longitudinal groove, *d*, for the guide strip, which makes a secure point of
21 attachment for the comb when the bees begin to build in the frames set side by side in the hive with the parts of the frame containing the recesses *b b* at the top." "These frames," it is added, "meet a want long felt by bee keepers, as those in common use are either dovetailed or nailed together at the corners, and, if set up at the manufactory, form a large bulk for transportation, and are very liable to br-akage in handling, but if sold to the user in pieces, to be put together by him, the numerous joints to be made cause loss of time and produce a very fragile article when finished, which loses its rectangular shape with the slightest rough usage, as the joints at the corners lack the necessary strength and rigidity to hold them in shape." "My frame," the specification continues, "will be found to possess some of the above-named defects, as it is intended for transportation in solid packages before being set up, and when set up possesses great strength and rigidity, preserving its form without difficulty during all the rough handling to which such frames are frequently subjected."

The defendant denies infringement and alleges want of patentable novelty in the alleged invention.

It is admitted that the defendant manufactures and sells blanks for honey frames like these of the complainant in all respects but one. They omit the longitudinal groove for the guide strip for attaching a piece of comb as a beginning point for the work of the bees.

It is claimed that this omission is sufficient to distinguish the defendant's manufacture from that described in the patent, as it is

contended that the patent is for a heavy section containing a combination of all the elements specified in the patent, so that each element by force of the patent has been made material to the alleged invention described and secured thereby.

22 It is insisted, however, on the other hand, that this is a misconception of the invention patented, and that the latter, to use the language of counsel, is for "the construction of a blank completely adapted to form a honey section ready for immediate use by simply bending it into shape and joining its ends"—that is, the patent is not for a honey section with all the features enumerated considered as a combination, but for the blank adapted for its formation by simply bending and uniting its ends. Conceding this to be the true meaning of the claim, it is necessary, to support the patent, to consider it as embracing the honey frame as thus formed and made out of such a blank, for supposing the frame or section not to be covered by the patent would leave as included in and covered by it merely the idea of leaving the blank in its condition as such for the purpose of more convenient packing and transportation, to be formed by bending together and uniting its ends by the purchaser for use into a honey frame. The embodiment of that single idea can hardly be supposed to be the proper subject of a patent. It is merely the adoption of a form of handling and packing which is not regarded by the statute as an improvement in an art or manufacture.

If the patentee is entitled to claim the blank as a new and useful device it is because it is a constituent of the frame or section into which it is formed by bending, no matter who bends it, whether the maker or purchaser, for use; but if the state of the art at the date of the alleged invention was such that the patentee cannot claim as his invention the honey frame or section when formed by bending and uniting the ends of such a frame, then he cannot, for the same reason, claim as his invention such a blank for the purpose of

23 forming into a frame or section.

The question, therefore, is whether, upon the evidence at the date of the alleged invention, the manufactur- of honey frames or sections by bending and uniting the ends of a blank consisting of a single piece, substantially as described in this patent, was a patentable novelty. Upon a careful comparison and consideration of all the evidence this question must be answered in the negative.

Alexander Fiddes testifies to making and using heavy sections formed from a single piece, grooved, bent, and united at the ends, as early as in 1872 and 1873, some of which he sold to others for use, and if those now made by the complainant under his patent are superior in any respect to the first specimens of the manufacture it is merely in point of finish and workmanship. There is no difference whatever in principle, and the early examples were complete and practical frames, actually used and perfectly serving the purpose, so that they cannot be considered as rude and imperfect experiments subsequently developed into a successful manufacture.

The conclusion, indeed, is required by the production in evidence of the patent granted to Hutchins of Dec. 8, 1874, No. 157,473, which is for a machine for the manufacture of just such blanks from the

original log of wood, to be bent into form and the ends united so as to make the sides of a box for any purpose. The invention of such a machine, of course, supposes previous knowledge of the blanks it was desired to manufacture, and the transfer of the use of a box made from such a blank from the ordinary purposes to the single and special purpose of a box or frame for a heavy section is merely a new use of an old and well-known article, which involves
24 no invention. It results from these views that the equity of the case is with the defendant, and that the complainant's bill must be dismissed with costs, and it is so ordered.

STANLEY MATTHEWS,
Associate Justice.

And afterwards, to wit, on the 24th day of November, being a day of the October term, A. D. 1884, the Honorable Stanley Matthews present, the following decree was entered in said cause in said court, viz:

Decree.

In the Circuit Court of the United States for the Northern District of Ohio. In Equity.

JAMES FORNCROOK *vs.* AMOS I. ROOT.

This cause having come on to be heard upon the bill of complaint therein, the answer of defendant and replication thereto, and upon the proofs taken in said cause, and having been argued by counsel for the respective parties:

Now, therefore, on consideration thereof, it is ordered, adjudged, and decreed, and the court doth hereby order, adjudge, and decree, that the complainant's bill of complaint herein be, and the same is hereby, dismissed with costs to defendant, to be taxed.

And it is further ordered that this decree be entered *nunc pro tunc* as of the eighth day of August, A. D. 1884, and that an appeal be allowed to complainant in said cause.

25 And afterwards, to wit, on the 6th day of January, A. D. 1885, the following bond was filed in said cause in said court, viz:

Bond.

Supreme Court of the United States.

JAMES FORNCROOK, Complainant and Appellant,

vs.

AMOS I. ROOT, Defendant and Appellee.

Know all men by these presents that we, James Forncrook, as principal, and William L. Morris and Willis P. Keyes, as sureties, all of Watertown, in the State of Wisconsin, are held and firmly bound unto Amos I. Root, of Medina, in the State of Ohio, in the sum of five hundred dollars, to be paid to said Amos I. Root or his

assigns; to which payment, well and truly to be made, we bind ourselves and each of us, jointly and severally, and our and each of our heirs, executors, and administrators, firmly by these presents.

Sealed with our seals and dated this (24th) twenty-fourth day of December, in the year of our Lord eighteen hundred and eighty-four.

Whereas the above-named James Forncrook hath prosecuted an appeal to the Supreme Court of the United States to reverse the decree rendered against him and entered on the twenty-fourth day of November, A. D. 1884, *nunc pro tunc* as of the eighth day of August, A. D. 1884, in a certain cause pending in the circuit court of the United States for the northern district of Ohio, in equity, wherein said James Forncrook was complainant and said Amos I. Root defendant, and in favor of said Amos I. Root, defendant:

26 Now, therefore, the condition of this obligation is such that if the above-named James Forncrook shall prosecute said appeal to effect and answer all costs if he shall fail to make good said appeal, then this obligation shall be void; otherwise the same shall be and remain in full force and virtue.

JAMES FORNCROOK. [SEAL.]
WM. L. NORRIS. [SEAL.]
W. P. KEYES. [SEAL.]

Sealed and delivered in presence of—
FRANK B. TUTTLE.
M. N. BARBER.

STATE OF WISCONSIN, } ss:
County of Jefferson, }

On this 24th day of December, A. D. 1884, before me, a notary public in and for the county and State aforesaid, personally appeared James Forncrook and William L. Norris and Willis P. Keyes, and, on examination by me, justified their pecuniary responsibility under oath.

FRANK B. TUTTLE,
Notary Public, Jefferson Co., Wisconsin.

I, Daniel Jones, president of the Wisconsin National Bank of Watertown, Wisconsin, do hereby certify that James Forncrook, principal, and William L. Norris and Willis P. Keyes, surities, upon the foregoing bond, are personally known to me, and that they are fully responsible for the amount of said bond.

DANIEL JONES,
President Wisconsin National Bank, Watertown, Wisconsin.

Bond approved.
January 2nd, 1885.

STANLEY MATTHEWS,
Associate Justice.

27 And afterwards, to wit, on the second day of January, A. D. 1885, the following citation was issued in said cause, viz:

UNITED STATES OF AMERICA, *ss:*

To Amos I. Root:

Whereas James Forncrook hath prosecuted an appeal to the Supreme Court of the United States from the decree rendered against him and entered the twenty-fourth day of November, A. D. 1884, *nunc pro tunc* as of the eighth day of August, A. D. 1884, in a certain cause pending in the circuit court of the United States for the northern district of Ohio, in equity, wherein said James Forncrook was complainant and you were defendant, and has filed the security required by law:

You are, therefore, hereby cited and admonished to be and appear at a Supreme Court of the United States to be holden at Washington on the second Monday of October next, to abide the decree of said Supreme Court and to do and receive what may appertain to justice to be done in the premises.

Witness the Honorable Stanley Matthews one of the justices of the Supreme Court of the United States, this second day of January, in the year of our Lord eighteen hundred and eighty-five.

STANLEY MATTHEWS,
Associate Justice.

28 THE STATE OF OHIO, }
Medina County, } *ss:*

Personally appeared F. O. Phillips, who, upon being duly sworn, says that on the 9th day of January, A. D. 1885, he personally served the within citation upon Amos I. Root by exhibiting to him the original and delivering him a copy thereof; and further affiant saith not.

F. O. PHILLIPS.

Subscribed in my presence and sworn to before me the 9th day of January, A. D. 1885.

CHARLES NEIL, *Clerk.*

[Endorsed:] Supreme Court of the United States. James Forncrook, compl't & appellant, *vs.* Amos I. Root, def't & appellee. Citation.

29 And afterwards, to wit, on the 8th day of October, A. D. 1883, the following depositions were filed in said cause, viz:

In the Circuit Court of the United States for the Northern District of Ohio. In Equity.

JAMES FORNCROOK, Comp't, *vs.* AMOS I. ROOT, Def't.

Testimony taken on behalf of the aforesaid complainant in the above-entitled cause, before Merritt H. Dement, a notary public in and for the county of Cook and State of Illinois, September 22, 1883, pursuant to the annexed stipulation.

Appearances: Mr. W. P. Wells, for complainant; Mr. J. A. Osborne, for defendant.

Complainants offer- in evidence letters patent of the United States, issued to James Forncrook for new and useful improvements in sectional honey frames, No. 243,674, dated June 28th, 1881, and the same, or a certified copy thereof, is hereto annexed, marked "Forncrook's Exhibit 2."

Complainants also offer- in evidence a one-piece sectional honey frame, which is marked "Forncrook's Exhibit 3."

Counsel for defendant objects to the last offer unless the frame shall be identified.

Deposition of A. H. Newman.

ALFRED HENRY NEWMAN, a witness called to testify on the part of the complainant in the above-entitled cause, having been first duly sworn to testify the truth, the whole truth, and nothing but the truth in the cause aforesaid, did depose and say as follows, to wit:

Examination-in-chief by Mr. WELLS:

30 Q. What is your name, age, residence, and occupation?

A. My name is Alfred Henry Newman; my age is 26 years; my residence is Oak Park, Illinois, and my occupation is dealer in bee-keepers' supplies.

Q. Look at Forncrook's Exhibit 3 and state what you know about it, if anything, and where it came from.

A. I purchased this section of A. I. Root, in November, 1882.

Q. Who is A. I. Root?

A. He is a dealer in bee-keepers' supplies and publisher of "Gleanings in Bee Culture," in Medina, Ohio.

Q. Was that section that you purchased a portion of a larger quantity?

A. Yes, sir.

Q. All purchased at the same time?

A. Yes, sir.

Q. Where has it been since you purchased it?

A. It has been laying in my store.

Q. How did you obtain it from Medina, Ohio?

A. It came—I am not certain whether it was by express or freight. It came either by express or freight.

Q. Has it been continuously in your possession from the time you received it until this morning?

A. Yes, sir.

Q. Until you produced it here?

A. Yes, sir.

Complainants renew their offer of "Exhibit 3," at which time no objection was made.

Q. Are you familiar with bee-keepers' supplies and the various devices for sectional honey frames?

A. Yes, sir.

Q. How long have you been so familiar?

A. For the last five or six years.

Q. Look at the honey frame I now hand you and annex it to your deposition, marked "Forncrook's Exhibit 4," and state what that is.

A. That is a one-piece section designed to hold a pound of comb honey, made by Mr. Forncrook.

The section referred to was received in evidence without
31 objection, and marked as directed.

Q. Are you familiar with the Forncrook sections, so called?

A. Yes, sir.

Q. State, if you can, the utility and advantage of the Forncrook section compared with sections previously known or invented, if there is any such.

Counsel for defendant objects to the question on the ground that it assumes, without proof, that the Forncrook section has advantages over other sections previously known.

A. The utility of the Forncrook section is that it can be put into shape ready for the bees in less time than the ordinary sections made of four pieces; and when so put in shape it presents a better appearance from the fact that it shows no end grain of wood.

Q. As compared with other sections, which do you regard as the more valuable?

A. The Forncrook one-piece sections.

Q. And useful?

A. Yes, sir.

Cross-examination by Mr. OSBORNE:

Q. Are you one of the members of the firm of Thomas G. Newman and Son?

A. I am in business for myself alone. There was a firm of Thomas G. Newman & Son which used to exist, but it was dissolved three years ago.

Q. When was that firm of Thomas G. Newman & Son organized?

A. In 1878.

Q. Organized in 1878 and continued up until when?

A. 1880.

Q. Who composed the firm during its existence?

A. My father and I.

Q. How many of these sections did you buy of Root in Nov., 1882?

32 A. Five hundred,

Q. Who ordered them?

A. I did.

Q. How?

A. By mail.

Q. By writing him a letter?

A. Yes, sir.

Q. Did you receive any answer in reply to that letter?

A. I received an answer that the goods were shipped and the order was filled.

Q. Do you remember how they came—whether by express or freight?

A. I don't remember.

Q. Are the advantages which you claim and have pointed out the only advantages, in your opinion, which the Forncrook sections sustain over other one-piece sections, or over other sections theretofore in use? You stated that it was more convenient about putting together, etc.

A. Do you mean as compared with other one-piece sections?

Q. As compared with other sections in use before the invention, or alleged invention, of the Forncrook section. That includes all sections that were in use before that time of whatever description.

A. I am a little confused on that; I do not exactly get the idea.

Q. You said in your direct examination that the advantages of the Forncrook section over other one-piece sections in use were that it was more convenient to put together, and that it presented a better appearance?

A. That was in comparison with the four-piece sections.

Q. Well, does the Forncrook section possess any advantages over the one-piece sections in use at the time of the invention of the Forncrook section?

A. The shape of the groove of the Forncrook section, in comparison with this other, Exhibit No. 3, in my opinion, is preferable to the square groove; the V groove is preferable.

Q. That is not what I am asking you. You see these men

33 claim that this section, Exhibit 3, was not made until after the Forncrook section. My question is, What advantages, if any, does this Forncrook section possess over other one-piece sections that were in use at the time of the invention of the Forncrook section?

A. Well, that question I cannot answer for the reason that I do not know now what other sections you refer to or what were in use at that time.

Q. I will ask you if there is any difference between Exhibits 3 and 4? If there are any differences, point them out.

A. Yes, sir; Exhibit No. 4 has the longitudinal groove which No. 3 lacks; the transverse groove of No. 4 is in the shape of a V, while in No. 3 it is square.

Q. How long have you known of side insets being used in sectional honey frames, or recesses for the entrance of bees?

A. I have known of them ever since I have been in the supply business.

Q. How early was that?

A. That was either five or six years ago.

Q. How long have you known of longitudinal guide grooves for passing in foundation starters being used in sectional honey frames?

A. Those have been used for the last five years, to my knowledge.

Q. How long have you known of side insets or recesses for bee entrances and guide grooves being used in the same section?

A. For the last five years. I would like to ask a question on that side inset. That refers to this one-piece section, of course. The four-piece sections have no inset. I would like to correct that last answer.

Q. Well, I will ask you the question, How long have you known of four-piece sections with side entrances for bees?

A. That I can answer; for the last five years.

Q. If you take out of the Forncrook section the longitudinal
34 guide grooves would it still be available as a sectional honey frame?

A. In a very few cases I have known it to be used.

Q. Do not some of your customers order sections without side entrances for bees?

A. Yes, sir.

Q. And then how are they used in bee-hives to provide entrances for the bees?

A. I have never been informed on that point by those that have bought of me.

Q. You are not a practicable bee man, then, yourself?

A. Yes, sir; since I have been in the bee-supply business we have been handling bees right along, and have given that subject our attention for the last five or six years; I do not claim to be a practical bee keeper.

Q. Do you buy any of your supplies of Forncrook?

A. I buy all my one-piece sections.

Q. How long have you been buying them of Forncrook?

A. For two years.

Q. Have you any sections stored in his factory up there now?

A. I have given Mr. Forncrook an order for next season, and whether he has any sections made up or not, I do not know.

Q. Have you advanced him any money on that order?

(Counsel for complainant objects to the question as being immaterial.)

A. No, sir.

Q. Have you any interest in this suit?

A. Not the slightest.

Q. Have you any interest in this Forncrook section?

A. Not the slightest.

Q. Have you loaned Forncrook any money?

A. No, sir.

Q. Have you loaned him any to aid him in prosecuting this suit?

A. No, sir.

Q. Has he promised you any advantages under the letters patent in case it is sustained by the courts?

A. Not the slightest.

Q. Did you send to Root for these sections for the purpose of making testimony in this case?

35 A. Yes, sir—that is, I would like to modify that a little; I ordered those sections with an idea that I might be called upon some time to testify; not this particular suit at all.

Q. The Newmans and Root are not on very friendly terms, are they?

A. Not that I know of—that is, I do not know that they are not on friendly terms.

Q. There is a rivalry between the Newmans and Root that does not exist between other bee dealers in the country, is there not?

A. If there is, it is just on a matter of business. We are in the same lines of business.

Q. Did I understand you that you are a practical bee man?

A. No; I do not claim to be.

Redirect examination by Mr. WELLS:

Q. Is there any other rivalry between you and Root, except in the ordinary competition in the same business?

A. No, sir.

Q. Was those sections that you purchased purchased in the course of trade?

A. Yes, sir.

Q. How do the sales of the Forncrook sections compare, as a matter of proportion, with sales of sections of other kinds?

(Counsel for defendant objects to the question as incompetent, irrelevant, and not matter for redirect examination.)

A. The sales of the Forncrook one-piece section have been about twice as much as all other styles of sections combined.

Q. Since when?

A. This last season.

Q. How as to previous seasons since the Forncrook section was put upon the market?

(Counsel for defendant objects to the question as incompetent, irrelevant, and not matter for redirect examination.)

A. The proportion may be a little different, but I have sold more of the Forncrook sections than of others.

Recross-examination by Mr. OSBORNE:

36 Q. You are speaking now only of the sales you have made yourself?

A. Yes, sir.

Q. You do not pretend to know what other bee-supply dealers have sold, do you?

A. No, sir.

Q. How many of the Forncrook sections did you sell this year?

A. Between four and five hundred thousand.

Q. How many of the dove-tail sections have you sold?

A. I cannot give a direct answer to that.

Q. Well, but you — answer proportionately as to the number?

A. I have bought nailed and dove-tailed sections of one party.

Q. Who did you buy those of?

A. Of G. B. Lewis; and I have not figured up individually how much of each style I have bought.

Q. Let me ask you whether or not after the nailed section is put together it is not a stronger and more durable section than this section of Forncrook's?

A. No, sir; I do not so regard it. It may be equally strong, perhaps, but not any stronger.

Q. Are not these fibres crossing here (indicating transverse grooves) apt to *tare* out, and do they not often break when bending together?

A. They do, sometimes.

Q. Is not the loss on them in that way considerable sometimes?

A. A very small percentage.

Q. If one of them breaks in bending can it conveniently be put together again by bee men so as to be used, or is it lost?

A. Well, I believe that usually they throw them away.

Q. Then whatever breaks is a loss?

A. Yes, sir.

ALFRED HENRY NEWMAN.

Deposition of M. E. Dayton.

MELVILLE E. DAYTON, a witness called to testify on the part of the complainant in the above-entitled cause, having been first duly sworn to testify the truth, the whole truth, and nothing but
37 the truth in the cause aforesaid, did depose and say as follows, to wit:

Examination-in-chief by Mr. WELLS:

Q. State your age, residence, and occupation.

A. I am 47 y'rs old; my residence is Chicago; my occupation, that of mechanical engineer and expert and solicitor of patents.

Q. What and how long has been your experience in your occupation?

A. I received in early life a thorough mechanical training, and have been engaged through life largely in mechanical pursuits. For the last eleven years I have made a close study of patents and of patented devices, and for the last seven years have been exclusively occupied as a solicitor of patents and mechanical expert, durwhich time I have prepared several hundred applications for pat-

ents and have many times testified as an expert in patent causes. I have also been frequently called upon to investigate questions of correspondence and difference between mechanical devices with reference to the infringement of patent claims, and therefore have become familiar with questions of infringement of patent claims.

Q. Look at "Forncrook's Exhibit 2" and state whether or not you understand the same and the invention therein described.

A. I have carefully examined said exhibit, the same being letters patent of the United States No. 243,647, granted June 28, 1881, to James Forncrook, for a sectional honey frame, and I believe I understand the same.

Q. Look at "Forncrook's Exhibit No. 3" and state whether you understand its construction and operation.

A. I have made the examination called for by the question and believe I understand the construction and operation of the exhibit shown me.

Q. Compare these two exhibits together and state any
38 similarity or dissimilarity there may be in them, if any such exists.

A. The device shown in the patent exhibit consists of a strip of wood, as here shown and described, having dentated ends adapted to interlock with each other; having three transverse angular grooves extending nearly through the body of the strip; having lateral indentures or recesses, marked *b*, in the margin of strip, and also, as shown in the drawing of said patent, a longitudinal groove or kerf, lettered *d*, extending from one of the transverse grooves to the nest. The device, as a whole, constitutes a blank adapted to be bent in the weaker portions, formed by the transverse grooves *c c*, so as to form a rectangular inclosure, the free ends of which are united by the interlocking of the dentations *a a* at the ends of the blank. By reason of the lateral recesses *b b b* the device thus formed is adapted to serve as what is technically known as a honey section or frame for the deposition of surplus honey by bees when placed in proper position in the hive for that purpose. Comparing it with the device shown in the patent and thus described, I find in "Forncrook's Exhibit 3" a blank corresponding in general form and dimensions with that shown in the letters patent just considered. In other words, I find a wooden strip of about one-eight of an inch in thickness and a little less than two inches in width, perhaps, and a little more than sixteen inches long. In one of the broad surfaces of the strip are formed transverse an-ular grooves extending nearly through the body of the strip, leaving sufficient wood or fibre, however, to hold the parts together when the strip is bent in said transverse grooves to form a rectangular enclosure. The ends of the strip are dentated so as to interlock and to hold the
39 article in rectangular form after being bent. The lateral edges of the strip are indented between some of its adjacent grooves in substantially the same manner as indicated in the aforesaid letters patent, and the structure formed by the bending of said strip, Exhibit No. 3, into rectangular shape and securing its ends in the manner described is to all intents and purposes identical with that

shown and described in the aforesaid letters patent, to wit, a structure adapted to be placed in a hive for the purpose of receiving honey to be deposited therein by the bees. In other words, technically, a honey section. On closer comparison of the device "Complainant's Exhibit No. 3" with the device shown in the Forncrook patent, Complainant's "Exhibit No. 2," I observe that the longitudinal groove present in the said patent and marked by the letter *d* is not present in said Exhibit No. 3. This would constitute the only difference between the completed structures.

Q. State whether the longitudinal groove, the absence of which you have just spoken of, is an essential part of the invention described in the patent.

(Counsel for defendant objected to the question as incompetent and immaterial.)

A. I do not regard said longitudinal groove as an essential feature of the invention. In fact, my information of the art enables me to judge that it was, in truth, no part of the invention made by Mr. Forncrook and sought to be patented in his aforesaid letters patent, "Exhibit 3."

Q. State your opinion of the adaptability and utility of the invention patented as a one-piece honey section, if such exists.

(Counsel for defendant objected to the question as incompetent and immaterial.)

40 A. The object of the construction set forth in said letters patent is to provide the material of a honey section in such form or shape as to enable it to be shipped cheaply and conveniently by being packed closely, and at the same time adapted to be, with little inconvenience or trouble on the part of the ultimate purchaser or consumer, put into the necessary shape for use. To this end the transverse grooves are so located with reference to each other and to the ends of the blank that when the strip is folded in said grooves and the ends of the strip joined the box will have the requisite form and dimensions, and will also have its narrowed portions in proper positions to admit of the use of the box, or frame rather, thus formed for the purpose of a honey section. The utility of this device is obvious from a description of its construction and proposed use, as just stated. These honey sections are used in large quantities and should be of symmetrical form, clean, and neat and withall cheap. The construction described is one by which perfect uniformity in shape and size is secured and by which, also, are secured the other requisites just mentioned. They require no special skill on the part of the person who ultimately puts them to use to secure the results of uniformity and accuracy in shape and size just mentioned, these all being provided for, as stated, in the original construction of the strip. They are also in the strip form obviously in shape to be packed as closely almost as the original lumber from which they are cut, and to, therefore, form relatively small packages as compared with the dimention and weight of packages that would be formed if the boxes or frames were to be shipped after completion.

Cross-examination by Mr. OSBORNE:

41 Q. Please examine the model I now hand you and state what it is, and attach the same to your deposition as "A. I. Root's Exhibit 15."

A. This is a strip of wood about one-eighth of an inch in thickness and perhaps twenty inches long and one and a half inches and a little more in width, having three transverse angular grooves cut in one of its broad faces the greater part of the distance through the strip. The ends and edges are in right lines or uncut.

Q. Examine the model I hand you and state what that is, and attach it to your deposition as "A. I. Root's Exhibit No. 16."

A. This exhibit is a strip corresponding in external dimensions with "A. I. Root's Exhibit No. 15," having three transverse angular grooves in one of its broad surfaces, like the last preceeding exhibit, and also having recesses cut in the side edges between the adjacent transverse grooves in one instance and between one of said transverse grooves and the end of the strip in another instance.

Q. What are the differences between "A. I. Root's Exhibit No. 16" and the section described as "Forncrook's Exhibit 2?"

A. The difference consists solely in the absence in said "A. I. Root's Exhibit No. 16" of the dentations or tongues and grooves *a a* at the ends of the blank in the patent, and in the absence, also, of the longitudinal groove extending from one transverse groove to the next, which is present in said patent and marked "*b*" therein.

Q. What are the differences between "A. I. Root's Exhibit 15" and the section described in the said letters patent?

A. Said "Exhibit No. 15" is wanting in the features just mentioned as absent in "Exhibit No. 16," and is also wanting the lateral indentations or cuts or insets marked "*b*" in said patent.

42 Q. You stated in your direct examination that the longitudinal guide grooves in the Forncrook section did not constitute a part of the invention. Will you please state what Forncrook's invention is and wherein consists the invention?

A. I stated that the longitudinal groove *d* in the Forncrook drawing was not his invention, because Mr. Forncrook has stated to me that it was a common feature in honey sections prior to the date of his invention. Proceeding to answer the question, I reply that I understand the Forncrook invention to consist in the blank, as a whole, adapted to be bent into form to constitute a complete honey section. In other words, a single piece of wood of proper width, length, and properly scored or transversely grooved and properly indented at its edges to give the necessary contour and dimensions of a honey section, to which, as I understand, the longitudinal groove is not an essential thing, inasmuch as the comb foundation which said groove is intended to admit is fastened to the section by various other means.

Q. What invention would there be required in placing in "Root's Exhibit 16" the additional features which you state as being found in "Forncrook's Exhibit 2?"

A. Assuming that "Root's Exhibit 16" is in all respects adapted to form a honey section by reason of its dimensions and the lateral indentures, there would be no invention, in my judgment, in it.

Q. I will ask you the same question with regard to "Exhibit 15."

A. Making the same assumption with reference to the dimensions and arrangement of the transverse grooves, the invention in adopting the strip "Exhibit No. 15" to form a honey section without other labor than merely bending it into form and joining its ends
43 would consist in the production of the lateral indentations intended to furnish an entrance to the section for the bees.

Q. Supposing that the side recesses or entrances for bees had been well known and in public use, and it was personally known to Mr. Forncrook before his alleged invention of his sectional honey frame, what invention would it require on his part to take that inset and place it in a section made of one piece instead of several pieces?

A. As before stated, the invention of Mr. Forncrook consists in the construction of a blank completely adapted to form a honey section ready for immediate use by simply bending it in shape and joining its ends, and his claim is upon the blank constructed to form such a complete or finished honey section by the simple labor on the part of the ultimate purchaser or user of bending up and joining the strip into rectangular shape. The invention is not broadly providing a honey section with a lateral indentation to give ingress to the bees, but it is in the blank adapted to be bent as described, and also possessing the feature of indentations ready made therein, so that when the strip is bent to form the indentures will be in the proper position to serve the purpose for which they are intended, and to in this respect give a complete honey section. The invention is in the blank as a whole with respect to the features of its being bent to form and with respect to the indentations for the admission of the bees, and not in any one of these individual features as mechanical features of construction.

Q. Supposing that boxes made of a single piece of wood with dentated ends for interlocking had been well known and in public use, and also side recesses in bee sections had been well known and
44 in public use, and also the longitudinal guide grooves had been well known and in public use prior to the alleged invention of Mr. Forncrook, what would the Forncrook section amount to under such circumstances more than the mere aggregation in one section of the different features that are found in it?

A. The invention consists, as before stated, in the completed article, including the general dimensions, outline of the blank, location and arrangement of the transverse grooves, and all those features which go to make up said completed article in its adaptation to the particular use to which the device is put.

Q. Then I understand you that it would be under those circumstances an aggregation in one frame of the features found in it so as to adapt it as a honey frame?

A. The term "aggregation" is used in patent law and in the Patent Office in a restricted sense to imply a mere assemblage of parts or features. In a general sense I understand the term to mean a

grouping or bringing together of things. Using the term in its general sense, all inventions embracing more than one part are aggregations, but they are not such aggregations as are described in the use of the term in the restricted sense to which I have referred. In other words, assuming them to be inventions, they are something more than aggregations in such restricted sense. If Mr. Forncrook has produced a new and useful article not theretofore known by grouping together features of construction theretofore well known, it may be, while still an aggregation in a general sense, not an aggregation in the particular sense I mention, but an invention. I understand the assemblage or aggregation or grouping to-
45 gether of the features of construction set forth in the Forncrook patent to be such a bringing together of parts or features of construction as constitute a new and useful article in the art to which it belongs, and therefore, in my judgment, it constitutes invention, and not a mere aggregation in the restricted sense to which I have referred.

Q. It is, in your opinion, then, a combination in one section of the various elements which compose it?

A. The word "combination" also has a particular use in patent practice more restricted than when used in ordinary language. The word "combination" is more specially applied to the co-operation of parts, usually each separately of a mechanical character or of an active nature in mechanics and machinery; but I do not know that there is any fatal objection to the use of the word in connection with features of construction belonging to an article of manufacture, as in this case, although upon this question I do not desire to express an opinion.

Q. When did you first see one of these Forncrook sections?

A. In its extended form only yesterday; I have seen the sections made from the Forncrook blank before.

Q. When did you first see Forncrook's letters patent?

A. Yesterday.

Q. Who showed them to you?

A. Counsel for complainant.

Q. How long have you been acquainted with Mr. Wells?

A. I met him for the first time yesterday.

Q. Have you ever known Mr. Forncrook before?

A. I never saw him before yesterday.

Q. How long did I understand you that you had been a professional examiner and testifier upon questions of this nature?

A. I have acted as a mechanical expert for the last seven years very frequently.

Q. Let me enquire if it is not the practice of the mechani-
46 cal experts who make it a business and hold themselves out to the public as such to sell their services to whoever calls upon them just as an attorney to testify to the arguments, as you have done in this case, in favor of sustaining the claims of the party who calls him.

A. I should dislike to express so insulting an opinion of a large

number of very respectable gentlemen engaged in my profession; and, as a matter of fact, I do not believe that such is the case.

Q. I meant nothing disrespectful at all; but, of course, what I meant to enquire was whether he did not expect in such cases to advance the theory that would sustain that side of the case.

A. With respect to my own practice, I can answer that it is by no means an unusual thing to decline to act as an expert for parties soliciting my services in that character, for the reason that I am unable to honestly hold the view entertained by such parties and necessary to the upholding or the defeat of a patent, as the case may be.

Q. How long have you known of honey sections of any kind or description?

A. For many years.

Q. How long have you known of boxes made of a single piece of wood?

A. For many years.

Q. How long have you known of the practice of interlocking the ends of pieces of wood together in the manner described in that patent?

A. That device is very old; many years old.

Q. How long have you known of side recesses being used in sectional honey frames of any description?

A. They are found in four-part boxes, or honey frames or sections, made at least prior to the date of complainant's patent and many years prior to the date of said patent.

Q. Have not all these different principles, to which I
47 have just called your attention, been known for many years previous to the date of the complainant's patent?

A. They have.

Q. Supposing sectional honey frames like "Root's Exhibit No. 16" to have been in use for at least six years prior to Forncrook's alleged invention and that the guide groove is not essential, as you stated in your direct examination, would there be any substantial advance or invention in putting into such a blank as said "Exhibit 16" the interlocking of the ends?

A. I do not think there would.

Q. Do you regard the side recesses for the ingress of bees as an essential element of the Forncrook invention?

A. I do; it is one feature of the general construction by which the ultimate object of the invention is obtained, viz., to furnish a construction in a blank capable of being shipped in its extended form and of being shaped up into a complete and immediately available bee section by being bent and fastened in rectangular form.

Q. Supposing the side inset for entrance of bees to be regarded by practical bee men as merely a matter of taste among them, many bee men prefer-ing sections without the side inset and using them by either placing small frames or separators between the sections in the hive in place of an inset, would you still say that the side inset is an essential feature of the invention?

A. It would be my impression that such would be the case from my acquaintance with the art, though before expressing a final opinion on that point I should want to have the art placed before me in conjunction with the claim of the patent.

Q. Supposing sectional honey frames like "Root's Exhibit 15" and also frames like "Root's Exhibit 16" had been known
48 and used for about six years before Forncrook's alleged invention, would you consider Forncrook's section a substantial advance over those sections to which I have just called your attention?

A. I see no reason why it should be; in other words, my impression is that it would not be.

Q. Is there any substantial difference between the Forncrook's Exhibit 3 and "Root's Exhibit 16?"

A. None; the transverse recesses, I should have stated when comparing "Forncrook's Exhibit No. 3" with the patent, are slightly unlike each other in form, said grooves in said "Exhibit 3" being of equal width throughout their depth, while those in the patent are V-shaped, but I do not regard this as a substantial difference either in the comparison of said "Exhibit 3" with the Forncrook patent or with the Exhibits Number- 15 and 16 just submitted to me.

Q. If many bee men use their sections without side insets or recesses for entrance of bees, and separate their sections in the hives by means of separators or by placing the sections apart, would you consider "Forncrook's Exhibit 3" a substantial advance over "Root's Exhibit 15?"

A. I answer that those who are supposed to not use the sections with the lateral recesses for the entrance of bees would not use Forncrook's invention, for, as I understand it, such lateral recesses are an essential feature of said invention; that is my present view expressed from my knowledge of the art, or, in other words, in view of the art as I now understand it. I should not consider the Defendant's "Exhibit No. 16" as containing Forncrook'- invention.

Q. Would you consider "Root's Exhibit 16" as containing Forncrook's invention supposing that to have been used for six years prior to Forncrook's alleged invention?

49 A. Counsel will understand that I have nothing to do with what may be the fact as to prior use.

Q. No; I am stating—supposing that to be the fact, and I am asking you to state your opinion upon a supposed state of facts.

A. Supposing substantially that the patent device of Forncrook is anticipated by prior use, in that case the patent would become invalid.

Q. Do you understand the difference between tight-top and open-top sections?

A. Yes, sir; I think I do. A tight-top section is one intended to be used in a hive without other sections placed above them, and therefore without provision for the passage of the bees through the top of the lower section to an upper section.

Q. Take the model which I now hand you and attach it to your deposition, marking it "A. I. Root's Exhibit 17." What kind of a section would you call that?

A. That is Forncrook's device, as described and claimed in his patent, and is a blank adapted to form a tight-top section.

Q. What is "Exhibit 4;" what kind of a section?

A. The said "Exhibit 4" will form an open-top section.

Q. Do you regard the absence of one set of the insets in the Forncrook section, so as to form a tight-top section instead of an open-top, a variance from the description given in his specification annexed to his patent?

A. I do not.

Q. Would the absence of one set of the insets in "A. I. Root's Exhibit No. 16," so as to form a tight-top section instead of an open-top, as it now is, *would* be a variance in that section?

A. Not an essential one.

Redirect examination by Mr. WELLS:

Q. Explain the different uses of the tight-top sections and
50 the sections recessed on both the bottom and top.

A. Honey sections are placed in the hives sometimes in a single vertical tier and sometimes in double tiers, or three or more deep. When to be used in a single tier or only one section deep the entrance, as in all other cases, is provided at the bottom of the section; and inasmuch as it is unnecessary for the bees to pass beyond the lower section into an upper one, because no upper ones are present, it is obviously unnecessary to provide the insets in the upper edge of the section to give a passage at this point. On the other hand, when the sections are to be placed one, two, or more above another it is necessary to afford a passage from one section to the next adjacent upper one; and to do this the inset referred to is provided in the upper side of the lowermost section, as well as in the lower side of the superposed sections. Now, in forming a blank for sections to be placed two or more deep in a hive, the blank will have its alternate parts or divisions provided with the insets necessary for the purposes I have named; but in forming a blank for the section to be used without any other section or sections above it only one division of the blank need be provided with the inset, because no passage is required through the upper part of the section.

Q. Are the cross-grooves in "Forncrook's Exhibit 3" transverse angular grooves?

Objected to as incompetent.

A. They are.

Q. Is the question whether any particular patented invention is a combination a question of law in any particular case where the matter is brought into litigation?

Objected to as asking for a conclusion of law.

A. I understand it to be so.

Q. Is that the reason that you declined to give an opinion
51 on the question as to combination asked by defendant's counsel?

A. It is.

Recross-examination by Mr. OSBORNE:

Q. I forgot to ask you a question: Would the difference in the length of the insets in the Forncrook section be material—that is, if they are long enough to admit of the free passage of the bees?

A. I think not.

Q. Would the difference be material if those insets extended clear to the corner formed by the transverse angular grooves?

A. That is a question that is presented to my mind for the first time; and from a moment's reflection I am inclined to think that it would be material in the blank transvers-ly grooved as described, for the reason that it strikes me as desirable that one end of the section should be as wide as the adjacent end when they are united by the fibres of the wood instead of by other fastenings; and yet, without opportunity for further consideration and examination of the art with reference to this feature, I would not like to give a final opinion; and my opinion above expressed is subject to modification if I should find hereafter that such modification is necessary.

Q. Have the recesses in one-piece sections any different functions to perform than they have in sections made of several pieces?

A. Not that I am aware of.

Q. Has the guide groove any different functions to perform in one-piece sections than it has in sections of other kinds?

A. It has not.

Q. Have the interlocking ends any different functions to perform in a section made of one piece than they have in a section made of four pieces?

A. They have not.

MELVILLE E. DAYTON.

52 STATE OF ILLINOIS, } ss:
Cook County, }

I, Merritt H. Dement, a notary public in and for the county of Cook and State of Illinois, do hereby — that on the 22nd day of September, A. D. 1883, by agreement of Mr. W. P. Wells, counsel for complainant, and Mr. J. A. Osborne, counsel for defendant, as per stipulation hereto annexed, personally appeared before me, at the office of Dement, Granville & Yonker, 161 Lasalle street, Chicago, Illinois, Alfred Henry Newman and Melville E. Dayton, to testify on behalf of the complainant in a certain cause now pending in the circuit court of the United States for the northern district of Ohio, wherein James Forncrook is complainant and Amos I. Root is defendant.

And I do hereby further certify that the aforesaid witnesses were first duly sworn to testify the truth, the whole truth, and nothing but the truth in the cause aforesaid, and that the testimony of said witnesses was reduced by me to writing, and the same subscribed to by said witnesses in my presence.

And I further certify that my fees for taking and returning said depositions are $23.50, which have been paid by complainant.

In testimony whereof I have hereunto set my hand and affixed my notarial seal this 2nd day of October, A. D. 1883.

[SEAL.] MERRITT H. DEMENT,
Notary Public.

And afterwards, to wit, on the 19th day of February, A. D. 1884, the following depositions were filed in said cause, viz:

Circuit Court of the United States for the Northern District of Ohio.
In Equity.

53 JAMES FORNCROOK, Comp't, *vs.* AMOS I. ROOT, Def't.

Testimony taken on behalf of complainant in the above-entitled cause before Hershel Whitaker, a commissioner in and for the eastern district of Michigan, on the 16th day of February, 1884.

Appearances: Mr. Wm. P. Wells, sol'r for complainant; Mr. L. D. Leggett, for defendant.

The attorney for defendant waives notice for taking this testimony, and all irregularities, and proceedes to take testimony as though notice had been properly served.

Deposition of T. G. Newman.

THOMAS G. NEWMAN, a witness produced on behalf of complainant, being first duly sworn, testified as follows:

1 Q. What is your name, age, place of residence, and occupation?
A. Thomas G. Newman; age is 50; Chicago, Ill.; editor & publisher.
2 Q. Of what paper?
A. Of the American Bee Journal.
3 Q. Have you any acquaintance with the manufacture and sale of supplies for bee keepers?
A. Yes, sir.
4 Q. If so, how long has it been?
A. For the last 10 or 11 years, more especially.
5 Q. Were you ever engaged in the sale of supplies for bee keepers?
A. I was, until the year 1880.
6 Q. Are you acquainted with the manufacture of what is known as "honey sections?"
A. I am.
7 Q. What are honey sections?
A. They are pieces of wood made of four sides for the purpose of enclosing honey to place it upon the market.
8 Q. Where are they to be used?
A. On the hive, either outside or on top, for the purpose of putting the surplus honey upon the market.
54 9 Q. Do you know what is known in the trade or art of bee keeping as a "one-piece honey section?"
A. I do.

10 Q. Describe generally a one-piece honey section.

A. It is a straight piece of wood with grooves allowing it to be bound up into the form of a section or box; the four sides of a box simply, interlaced together—the ends interlaced together for the purpose of securing it in proper shape.

11 Q. Look at the article I now hand you and mark it "Forncrook's Exhibit A" and annex it to your deposition. State what it is.

A. It is a Forncrook one-piece section.

12 Q. Look at the model I now hand you, which you will mark "Forncrook'- Exhibit B," and annex it to your deposition. What is this Exhibit B?

A. This is also a Forncrook section, differing from the other only in having one narrow side or top, giving an entrance to the bee and allowing it to tier up.

13 Q. What is that commonly called?

A. This is a wide-top section.

14 Q. Sometimes called a tight-top?

A. A wide-top or tight-top.

15 Q. Is the difference you have mentioned the only difference between the two?

A. The only difference is that.

16 Q. When did you first see sections like Exhibits A and B?

A. In October, 1878, before the 25th.

17 Q. Where did they come from?

A. From Lewis & Parks, Watertown, Wis.

18 Q. Who were Lewis & Parks?

A. They were a firm making sash, blinds, and doors, and such work, at that time, and also manufacturing bee-hives.

19 Q. For what purpose were they sent to you?

A. For the purpose of examination, to see if they were practical and of any particular value as an improvement in sections, and to be noted in the Bee Journal, with my opinion.

20 Q. Since that time have you known of honey sections of this kind in the trade?

55 A. Continuously since that, or as soon after as they were perfected.

21 Q. State what you know in respect to the adaptability and value of the Forncrook sections as honey sections.

A. They are a very practical section, and their value has been demonstrated by their driving most other sections out of the trade.

22 Q. When you speak of other sections what do you refer to?

A. I refer to the nailed, dovetailed, and berry-box material sections which were in use previously; perhaps the word "dovetailed" there should be defined a little.

23 Q. Yes, sir; I wish you would define it.

A. They were known as the dovetailed sections, but they are really not; it is a misnomer given to them; they are interlaced simply the same as these were at the ends, only the four pieces were made in this shape, interlaced, not dovetailed; dovetailing has a wider part inside.

24 Q. How many piece sections would describe those you have just mentioned?

A. I would describe them as four-piece and two-piece; the berry-box was made by some in two pieces and by some in one piece and doubled over; there are five pieces to them, five sides, and the two outer ones placed upon top of the other, making it stiffer.

25 Q. Previous to the 25th of October, 1878, had you known of any one-piece sections, strictly so called?

A. I had some samples sent me that were looking to that improvement.

26 Q. By whom?

A. Allow me to refer one moment to memoranda. (Witness refers to memoranda.) The berry-box section was sent me by Dr. Southard, of Kalamazoo, Mich., in the spring of 1877, and I made a drawing and published an engraving of them in the Bee Journal at that time.

27 Q. Describe them.

56 A. Those are made very thin, some call it veneering, about half the thickness of Exhibit B, and the joints were cut with a knife half way through and then bound up the opposite way to what these are.

28 Q. So the cut would be on the outside?

A. Yes, sir; simply to allow it to turn over without breaking.

29 Q. How were they fastened?

A. Being in five parts instead of two, the two outer parts lapped over.

30 Q. Five?

A. Yes, sir; five pieces.

31 Q. Were those sections manufactured and known in the trade?

A. They have never been known to the trade much; they have been used by a few individually simply, but have never been placed upon the market.

32 Q. What do you mean by strawberry-box material?

A. Such material as strawberry boxes are made of; that thin material.

33 Q. Did you know of any other one-piece section boxes previous to October, 1878?

A. In March, 1876, a man by the name of A. Fiddes, of Centralia, Ill., had a similar one.

34 Q. What was his?

A. Similar to the Southard, but there were some little difference; that I don't exactly remember now.

35 Q. Were the Fiddes sections ever manufactured and known in the trade?

A. No; there were others. Do you wish me to speak of them?

36 Q. Yes, sir; state all that you know.

A. Mr. T. T. Delzel, of Hersey, Mich., sent me a crate of one-piece sections with a letter dated May 23rd, 1878.

37 Q. Describe the Delzel sections.

A. They were cut out by hand and made similar to the berry-box sections, with a cut for the corners outside, and, when bent to place

as a four-sided section or box, they were to be nailed at the corners; or, I should have said, they were nailed, because that is the way they were at that time.

38 Q. For what purpose were the sections called the "Delzel sections" sent to y ·u?

A. To be noticed in the Journal as improving sections by getting towards a one-piece section.

57 39 Q. State any other one-piece section that you know of.

A. Perhaps I had better state, in connection with that, that these sections were placed upon the hive without glass and had grooves in the three wide pieces, so, when they were placed in position, he could slip a glass up inside of a little groove there; I don't know whether that is important or not.

40 Q. Yes; I want a complete description of it.

A. It could be sent to market in that shape as a glass section.

41 Q. The Forncrook sections are not adapted or intended for use with glass?

A. No.

42 Q. State your knowledge as to the superiority or inferiority of the Forncrook sections.

A. I beg your pardon for a moment; I have some others.

43 Q. There is another?

A. Yes, sir; there is another; H. K. Cotton, of Mt. Vernon, Ohio, sent me two-piece sections of berry-box material with the top bar extended; that, I suppose, should be described; they are sometimes called sections, but they are really frames; the top bar extended beyond the sides of the frame and hung in the hive.

44 Q. Is it necessary that there should be frames in the hives for the use of these sections?

A. Yes, sir; they couldn't be used without.

45 Q. Were the sections last described by you known to the trade?

A. No.

46 Q. Is there any other section known to you?

A. There was one, by a Mr. Gilbert, of Peekskill, N. Y., sent to me in 1879.

47. Q. What was that?

A. It was similar to the berry-box section.

48 Q. Of whom?

A. The berry-box sections of Delzel and Fiddes; it was very similar; made in about the same manner, as near as I can recollect.

49 Q. Are they known in the trade?

A. No; there were simply developments in the invention.

58 50 Q. Then I understand you that none of the sections you have described, except the Forncrook section, have been known in the trade?

A. None.

51 Q. State your knowledge of the superiority or inferiority of the Forncrook section over other honey sections or under other honey sections and the reason of your opinion.

A. It is a thoroughly practical section, and its superiority consists in the fact of its being a one-piece section, so that when you wish a

section the whole of the sides and top are there in one piece. The trouble before that in what they called the dovetailed sections was that you had to get four pieces assorted out and they were not very often adapted to interlace together; here the whole thing was complete.

52 Q. How are the Forncrook sections transported?

A. They are packed in packages very closely together, as you see, from the fact of their being flat, and are very easy to transport and pack and get to the consumer, or at least to the user of sections—apiarist.

53 Q. When are they bent into shape for use?

A. By the honey producer when wanted.

54 Q. What have you to say as to the strength of the Forncrook sections compared with other sections?

A. When combined together with these parts it forms a secure joint, which makes them very strong.

55 Q. Is the strength and solidity of the section an important feature in a honey section?

A. Quite so; the objection to the berry-box section was the fact of its being so weak as to break the honey when handled, and of the so-called dovetailed section that there was nothing to hold it square except simply the fact of the honey being inside; the least jar would make it insecure and would make the honey leak.

56 Q. What proportion of sales of the one-piece honey sec-
59 tions is there between the Forncrook sections and any other or all kinds?

A. I should say there were at least ten to one of the Forncrook sections now sold of all other kinds combined.

57 Q. Do you know anything in respect to the growth of sales of the Forncrook sections in the trade since you first knew them?

A. I have known them from their invention, and they have steadily increased in sale every year until the present.

58 Q. Beside the Forncrook sections what one-piece sections have been made and sold in the trade since you became acquainted with them?

A. I suppose you mean by the Forncrook sections those that are made in that form, without any reference to who made them?

59 Q. Yes; without any reference.

(Question read.)

A. None.

Cross-examination:

Examined by Mr. LEGGETT:

60 Q. What do you mean by Forncrook sections?

A. I mean the Exhibits A and B as presented to me here.

61 Q. Do you mean the sections containing the longitudinal slot?

A. Yes, sir.

63 Q. Do I understand you, then, that you have known to be sold in the market since the Forncrook invention none except such as have the longitudinal slot?

A. The Forncrook sections are made both ways, and Exhibits A and B have slots; that was the original way of making them; still they are made both ways, according to the desire of the bee keeper.

64 Q. What proportion of the one-piece sections found upon the market contain the longitudinal slot, according to your opinion?

A. You mean, I suppose, those that are made by all parties?

65 Q. Made by all parties.

A. By any one—no matter whether by Forncrook or any one else?

60 66 Q. Yes.

A. I should presume, taking that view of it, there would be a pretty nearly eaven division.

67 Q. About one-half, then, would have the slot and about one-half would be without it?

A. I should think so, some manufacture-s making them without.

68 Q. The Fiddes box, you say, was not known in the trade, so it was — used by any parties to your knowledge?

A. He claims to have sold a few in his immediate neighborhood.

69 Q. Now in reference to the Delzel?

A. Those have never been placed upon the market at all.

70 Q. Have they been used?

A. Nothing except such as he used, and perhaps one or two of his neighbors; I could not say as to that.

71 Q. In these boxes what was the provision for the bees entering and leaving?

A. In the Delzel box the bottom was narrower by a quarter of an inch than the other three sides; this quarter of an inch was filled up afterwards by the glass coming down over that and closing the box for the market.

71 Q. Do you regard Forncrook as being the first to provide in these bee boxes for the bees entering and leaving?

A. No; for all the other sections previous to that were made with bottoms and sometimes with the tops narrower than the sides, both the nailed and dovetailed, so-called.

Redirect:

72 Q. You know nothing of the sales of the Fiddes sections except that he claims to have sold some?

A. Nothing.

73. Q. How were the entrances which you have spoken of formed in the sections other than Forncrook's sections?

A. By the bottom piece being narrower; a straight and narrow piece.

61 It is stipulated between counsel that the witness sign the stenographic notes of his deposition, the signature to the translation being waived.

(Signed) THOS. G. NEWMAN.

Deposition of J. Forncrook.

JAMES FORNCROOK, the complainant, was then sworn in his own behalf, and testified as follows:

1 Q. What is your name, age, residence, and occupation?

A. James Forncrook; Watertown, Wis.; age, 44, and I am at present manufacture- of honey sections or frames.

2 Q. Are you acquainted with the manufacture and sale of honey sections?

A. I am.

3 Q. How long have you been thus acquainted?

A. I can't state positively, but I should judge, from the best of my knowledge now, that it is about 8 or 10 years.

4 Q. State what you know in regard to your inventing a one-piece honey section.

A. Some time in the fore part of the summer or latter part of the spring of 1877—I think it was about the time strawberries were in market; that is as near as I can get at the date—I made some sections from some strawberry-box material and used them on one or two hives. I found that the material was too light; was not substantial enough to protect the honey. I then went to work and made some of material about the thickness of Exhibit "B," and cut the "V"-shaped groove the same as in that and bent them around and nailed them at the four corners. I used them during that season of 1877 on my own hives in my own apiary; then, some time in the winter of 1878, I went to work on what I called an improvement on that by dovetailing them, cutting a "V"-shaped entrance part way instead of way cross. The first that I made I cut the V entrance away out to the corner. I mean by dovetailing the interlocking.

62 I suppose that is the proper name, as show- in my patent.

Then, in the summer or spring of 1878, I began to think about manufacturing for the trade, but there were none made for the market, except as samples, until the fall or winter of 1878; after that they were put upon the market.

5 Q. From the time you first began upon this section until you completed it were you in business for yourself or otherwise?

A. No, sir; I was foreman in the sash, door, and blind factory and also a factory for the making of bee-keepers' supplies of Lewis and Parks. At first the firm was G. D. Lewis; in October, 1878, it was Lewis and Parks for a short time, and after that Lewis again, at Watertown, Wis.

6 Q. Is Mr. Lewis, of Lewis & Parks, the same person who has testified in this case, named G. B. Lewis?

A. Yes, sir; he is.

7 Q. Did you hear his testimony given in this case?

A. Yes, sir; I did.

8 Q. When can you fix the date of your perfected invention, as you claim it?

A. The same as it is claimed in the patent?

9 Q. Oh, yes.

A. I can fix the date as early as May; I am not positive about its being before that, but as early as May, 1878.

10 Q. When were sections like these—Forncrook Exhibits "A" and "B"—ready for sale in the trade?

A. Do you mean in quantities?

11 Q. Any how—in quantities.

A. From that time until the fall of 1878 there was considerable many of them made and sent out as samples, but there were not any made in any great quantities—in fact there was no machine for cutting this "V"-shaped groove that would do the work practically until the fall of 1878.

12 Q. Before the fall of 1878 how were the "V"-shaped grooves cut?

A. I made a corner chisel and put it in a mortising machine and sliced it up, having the chisel cut corner-wise, you understand, sliding the chisel right down.

13 Q. What do you say as to any conversations between
63 you and Mr. Lewis in respect to the working of this improvement?

A. Are you speaking in regard to the way he testified in regard to this inset?

14 Q. Any particular improvement.

A. As far as that was concerned, he had nothing whatever to say about it until I showed him the completed sections.

15 Q. As far as what was concerned?

A. As far as the "V"-shaped entrance was concerned; as far as his claim was concerned that they should be made part of the way across; it is a mistake; it is not true; it was directly the reverse.

16 Q. What do you mean?

A. He thought it would be better to have the entrance part way across, but it was not so; he testified directly to the reverse of what the facts were.

17 Q. Did he give you any advice in respect to any other part of the improvement or suggestion?

A. Nothing whatever.

18 Q. Did Mr. Lewis have a controversy with you before the Patent Office in respect to the priority of this invention?

A. He did.

19 Q. What was that controversy?

A. Lewis and Parks, when they found I had perfected the thing—I was at work for them in the shop as their foreman—they saw it was a good thing, and they attempted to get it patented unbeknown to me, and I mistrusted what was on foot, and I sent to Washington to find out if I could. I wrote to a patent attorney there, and he told me there was no way to find out, and furthermore that the Commissioner of Patents had no right to tell me; I had no right to know; that the only way for me to find out was to file an application myself. I filed an application, and I found that there was another application in the office which had been put in, and that it would be put into interference; of course, they didn't give me the

names, but I knew what the names were. We went through interference and the priority of invention was awarded to me.

64 20 Q. Did anybody else interfere before you got your patent?

A. I got notice that the patent was allowed, and to take my patent I would have to send a final fee, which I did. When they received the final fee I got notice that there was another application in the office and it would be put into interference. I got notice that the parties were T. T. Delzel, of Hersey, Mich. I went through interference and I was awarded priority and the patent was granted.

21 Q. Do you remember of any conversation between yourself and Mr. Lewis in respect to a compromise of the interference between you and him?

A. Yes, sir.

22 Q. State what it was and when.

A. Now, then, as far as dates are concerned, I can't place them.

23 Q. As near as you can.

A. Well, I will fix it in this way: The night before they commenced to take the testimony on their side of the question——

24 Q. In the interference case?

A. In the interference case; they saw my attorney, Mr. Tuttle, and requested him to have me call at their attorney's office that evening; so I went there and I met Mr. Lewis, and he wanted to compromise the thing by giving me the patent and giving them the shop right, and they would drop the case if I would bind myself to give them the shop right.

25 Q. What do you mean by a shop right?

A. I mean by that to give them the exclusive right of the shop.

26 Q. To manufacture?

A. To manufacture.

27 Q. What took place?

A. I refused to compromise. He made some threats that he would beat me out of it, etc.

28 Q. Out of what?

A. Out of the patent; that they had more money than I had; that they would get another party to make an application and beat me out of it in that way.

29 Q. When did these sections of yours begin to be sold generally in the trade?

65 A. In the fall of 1878.

30 Q. When did you begin to manufacture them yourself as an independent business?

A. I think it was in 1879.

31 Q. Have you continuously manufactured them and sold them ever since?

A. I have.

32 Q. Look at the article I hand you, marked Forncrook Exhibit "C," which is annexed to your deposition. What is that?

A. There is a one-piece section, close or wide top; some call it close top; some call it wide top.

33 Q. Or tight top sometimes?

A. Yes, sir.

34 Q. Of whose manufacture is this?

A. I should judge by the looks of it A. I. Root, the defendant in this case, of Medina, Ohio.

35 Q. How does it differ from the Forncrook sections, so called?

A. It differs in the shape of the folding grooves.

36 Q. What is that difference?

A. In Forncrook's Exhibit "C" the folding groove is a square groove, while in Forncrook's Exhibit "B" the groove is "V"-shaped, and Exhibits "A" and "B" have the longitudinal groove where Exhibit "C" has not.

37 Q. Do you know whether the defendant, before the commencement of this suit, manufactured and sold honey sections like Exhibit "C?"

(The attorney for the defendant objects to the question for the reason that this question does not call for testimony in rebuttal, and is therefore irregular and illegitimate.)

A. I do.

38 Q. Are the differences between Exhibit "C" and the Forncrook section, which you have described, all the differences that there are?

A. Yes, sir.

39 Q. Before your claimed improvement of one-piece sections were you acquainted with one-piece honey sections?

A. That is, before the spring of 1878?

40 Q. Yes; or before you perfected your invention?

A. I was not acquainted with any except what I had made myself. I had never seen anything of the kind.

66 Cross-examination:

41 Q. Before you invented your honey section had you ever seen box sections made in a single piece?

A. I never had.

42 Q. Are you the complainant in this suit?

A. I am.

It is stipulated between counsel that the witness may sign the stenographic notes of his deposition, the signature to the translation being waived.

(Signed) J. S. FORNCROOK.

UNITED STATES OF AMERICA, } ss:
Eastern District of Michigan, }

I, Herschel Whitaker, a U. S. com'r in and for said district, do hereby certify that the parties to the above-entitled cause appeared before me at my office, in the city of Detroit, No. 15, Canpaw building, on the 16th day of Feb'y, 1884, at 10 o'clock a. m. in the forenoon of that day, with the witness named therein; that, as appears upon the first page of the foregoing testimony, the counsel consented to take the testimony before me without a stipulation; that the wit-

nesses were sworn by me to tell the truth, the whole truth, and nothing but the truth; that I took said testimony in shorthand and that it was reduced to writing in my presence and at my dictation; that the foregoing testimony is all the testimony taken before me on said hearing and a correct copy thereof.

I further certify that I am in nowise interested in the event of said suit, nor am I related to the parties thereto by ties of blood or marriage.

In testimony whereof I have hereunto set my hand and seal this 16th day of February, A. D. 1884.

Detroit, Michigan, February 16th, 1884.

—— ——, [SEAL.]
U. S. Commissioner, East. Dist. Mich.

67 And afterwards, to wit, on the 1st day of October, A. D. 1883, the following depositions on behalf of defendant were filed in said cause in said court, viz:

Depositions of Alexander Fiddes and Electa H. Coltrin, of Centralia, Marion county, Illinois, taken on behalf of the defendant in the case of James Forncrook, complainant, against Amos I. Root, defendant, now pending and undetermined in the circuit court of the United States for the northern district of Ohio, eastern division, in equity, pursuant to the annexed stipulation.

Present: Wm. P. Wells, of counsel for complainant, and James Forncrook, in his own behalf, and J. A. Osborne, for defendant.

Deposition of Alexander Fiddes.

ALEXANDER FIDDES, being first duly sworn according to law, deposes as follows:

Q. 1. What is your name, age, and place of residence?

A. My name is Alexander Fiddes; my age 51 years; I reside in Washington county, Illinois, but my post office is Centralia, Illinois.

2 Int. What is your business?

A. Farmer, bee keeper, and fruit raiser.

3 Int. How long have you been handling bees?

A. Probably about 23 years.

4 Int. Have you used sectional honey frames in your bee culture; and, if so, how long?

A. Yes; have used them about 12 years.

5 Int. What different kinds have you used?

A. Have used 4-piece sections and prize sections and one-piece sections.

6 Int. When did you first use one-piece sections?

A. I used them first in 1873; I made them in 1872.

7 Int. Take the model I now hand you, state what it is, and attach it to your deposition as A. I. Root's Exhibit No. 18.

A. It is a honey section.

68 8 Int. How is sectional honey frame marked Root's Exhibit 18 constructed?

A. Made of one piece of wood; it is cut with a saw at the corners, folded and nailed at the fourth corner.

9 Int. Has it insets for bee entrances?

A. Yes; it has notches; I call them bee entrances.

10 Int. What is the shape of the folding grooves at three of its corners; are they V-shaped?

Counsel for complainant objects to the question as leading. Question withdrawn by counsel for defendant.

11 Q. What is the shape of the folding grooves at three of its corners?

A. I do not know hardly what it is; it is the three corners cut with the saw half through, and then the edges cut with a knife; the edges of the saw cut so they will fold without breaking.

12 Int. Have you made and used in your bee business sectional honey frames like "A. I. Root's Exhibit Number 18?"

Counsel for complainant objects to the question as leading.

A. Yes; I have used them.

13 Int. When did you first see said "Root's Exhibit 18?"

A. It was in the winter of '72; was made in the winter of '72 for the honey season of '73; I used them in the summer.

14 Int. Please state, if you know, who made said Root Exhibit 18.

A. I made it myself.

15 Int. When?

A. I think it was in '72; about '72 this one was made.

16 Int. In whose possession has said A. I. Root's Exhibit No. 18 been from the time you made it until now?

A. It has been in my own possession all the time.

17 Int. Has there been *in* any change made in it from the time you first made it until now?

A. No; no change.

18 Int. Have you ever used this particular section marked Root's Exhibit Number 18?

A. Yes.

19 Int. When did you first use it?

A. In '73.

20 Int. Have you used sectional honey frames like said
69 Root's Exhibit Number 18 since 1873.

A. Yes.

21 Int. Take the model I now hand you and attach it to your deposition as A. I. Root's Exhibit Number 19 and say what it is.

A. A sectional honey frame.

22 Int. How is it constructed?

A. Of one piece of wood; the corners are cut out with a saw and edges cut down with a knife when made by hand.

23 Int. Has said Exhibit 19 side insets for bee entrances?

A. Yes.

24 Int. Are you able to state the points of difference or resemblance between said A. I. Root's Exhibits Number 18 and No. 19?

A. No; not in the pattern, but the make, of course; one is made with the hand and the other with a machine; that's all the difference I can see; the size and shape are the same.

Counsel for complainant objects to the answer because the witness has not been shown to be qualified to make any comparison of the two exhibits.

25 Int. Are you able to state what points of difference or resemblance there are between the two exhibits to which I have just called your attention?

A. No; I can't see any difference; yes, yes; I am able to state if there was any.

26 Int. What, if any, differences are there between said Root's Exhibits No.- 18 and 19?

Counsel for complainant objects to the question on same ground stated in objection to inter-ogatory 24.

A. No; I cannot see any difference in make; they are all the same pattern.

27 Int. Have you used sectional honey frames formed of a single piece of wood other than those like Root's Exhibit No. 18?

A. Yes.

28 Int. Take the model I now hand you, state what it is, and attach it to your deposition as "A. I. Root's Exhibit No. 20."

A. A sectional honey box from one piece of wood, with entrance for the bees in the center of the bottom of the section.

70 29 Int. Take the model I now hand you, state what it is, and attach it to your deposition as A. I. Root's Exhibit No. 21.

A. A sectional honey box made of one piece of wood, with the entries at one side.

30 Int. Take the model I now hand you, state what it is, attaching it to your deposition as A. I. Root's Exhibit No. 22.

A. A sectional box made of one piece of wood.

31 Int. Take the model I now hand you and state what that is, attaching it to your deposition as "A. I. Root's Exhibit No. 23."

A. A sectional box made of one piece of wood, with the entrances at both sides of bottom.

32 Int. What, if any, other sectional honey frames formed of a single piece of wood have you made or used other than sections made like A. I. Root's Exhibit Number 18?

A. I have made and used sectional honey frames like A. I. Root's Exhibits No.- 20, 21, 22, and 23.

33 Q. When and where did you first see A. I. Root's Exhibit No. 20?

A. In my own possession in about 1873.

34 Q. Who made it?

A. Myself.

35 Q. When and for how long have you used sectional honey frame- like said Root's Exhibit No. 20?

A. Made them from three years, I believe; from '73 to 75 or '76; '75, I believe; I used them for four years after '73.

36 Q. In what year did you say you first made them?

A. I made them in '72.

37 Q. When and for how long have — made sectional honey frames like A. I. Root's Exhibit Number 21?

A. In '72.

38 Q. I see there is a string tied around said Root's Exhibit No. 21. Who tied — on?

A. I did this morning.

39 Q. When did you make and begin using sections like No. 22?

A. It was in '73—the winter of '73.

40 Q. When did you begin making and using frames like
71 A. I. Root's Exhibit Number 23?

A. In 1876.

41 Q. Have you continued to use Root's Exhibit- No. 18, No. 20, No. 21, No. 22, and No. 23 from the time at which you say you began making and using them, respectively?

Counsel for complainant objects to the question as leading.

A. No; I haven't made any since '76, of the first four, but I continued to use what I had, and No. 23 I have continued to make and use since '76.

42 Q. Take the model I now hand you and attach to your deposition as A. I. Root's Exhibit No. 24, and say what it is.

A. It is a honey section made of one piece of wood with entries at both sides of bottom, with a cut or slot in the top of the frame.

43 Q. Are you able to state what, if any, differences there are between said Root's Exhibits 24 and 18?

A. Yes; I am able to state the difference.

44 Q. What, if any, differences are there between Exhibits 24 and 18?

Counsel for complainant objects that the witness has not been shown to be qualified to make any comparison of the two exhibits.

A. The difference is that 24 is smaller than 18, and there is a slot in the top of section No. 24, and the ends of 24 are dovetailed and 18 nailed.

45 Q. How long have you known of a side inset for bee entrances like the ones in the bottom of A. I. Root's Exhibit No. 18?

A. Since '72 I have known them.

46 Q. How much of the time did you lay awake nights and study days to get up that Exhibit No. 18?

A. I can't say I did any at all.

47 Q. Mr. Fiddes, did you at any time write a description of these one-piece sections, which you have stated you have made and used and attached to your deposition, to be published in any publication?

A. Yes.

48 Q. When?

A. I think it was in March, '76; I think it was; it was in '76.

72 49 Q. Was said description ever published in any publication in the United States?

A. Yes.

50 Q. In Gleanings in Bee Culture, published at Medina, Ohio, by A. I. Root?

—. It was published in April, I believe; I am not sure, though.

51 Q. Did you ever make any sectional honey frames of one piece for other persons?

A. Yes.

52 Q. When and for whom?

A. It was in '75, I believe—'74 or '75; made them for Mrs. Coltrin.

53 Q. What kind of sections was it you made for Mrs. Coltrin in 1874 or 1875?

A. It was one-piece section like A. I. Root's Exhibit No. 22.

54 Q. Are these different sectional honey frames made of one piece of wood, which you have testified to and attached to your deposition as A. I. Root's Exhibit- No. 18, No. 20, 21, 22, and 23, practical and available as honey frames?

A. Yes; they are practical.

55 Q. Have you marketed honey in such sectional honey frames, formed of a single piece of wood, as you have described, and attached to your deposition?

A. Yes.

56 Q. Did you market honey in them from the time you began to use them, respectively?

A. Yes.

Cross-examination:

1 Q. Mr. Fiddes, how many years have you been engaged in bee culture?

A. About twenty years.

2 Q. How extensively?

Question objected to by defendant's counsel as irrelevant and immaterial.

A. Well, have had as high as about one hundred, and been as low as one; begun with one.

3 Q. Been as high as a hundred, you say; any higher?

A. No.

4. Q. How many sectional honey frames like Root's Exhibit- 18, 20, 21, 22, 23 have you made or used in your lifetime, all told?

73 A. Well, I can't tell; I never marked them down—sometimes 50, sometimes two or three hundred, and I now have about a thousand in my hives.

5 Q. Have you ever made them for sale?

A. Yes.

6 Q. Which kind have you made for sale?

A. No. 22.

6½ Q. When did you begin to make them for sale like No. 22?

A. About '75—'74 or '75.

7 Q. How many have you ever sold like 22?

A. One hundred.

8 Q. Who to?

A. Mrs. Coltrin.

8½ Q. Anybody else?

A. No; I never had time; I have got lots of orders, but never had time to make them.

9 Q. Did you ever make any like 18 for sale—or like 20, 21, or 23?

A. No.

10 Q. Where does Mrs. Cotrin live, with reference to you?

A. About two miles northeast.

11 Q. Were all the sectional honey frames that you have made made by hand?

Defendant's counsel object- to question as irrelevant, incompetent, and immaterial.

A. Yes.

12 Q. I understand you to state that you made No. 20 as early as '72?

A. Yes.

13 Q. Are you quite sure of that?

A. Quite certain.

14 Q. How early did you make 18?

A. In '72.

15 Q. What was your reason for preserving these five exhibits?

A. For examples, if I were ever required to make any more.

16 Q. When did you cease to use them for actual honey making?

A. I used some of them this year. I have not made any since '73, except 23, but have used some of the others every year, because I had them on hand.

17 Q. Why have you used sections like 23 in preference since '76?

A. Because they are lighter to sell and easier made; people
74 said they were half wood.

18 Q. Then you don't consider sections like Exhibits 19 and 24 better or more available for honey sections than those you made?

A. No.

19 Q. Did you ever write anything for publication about honey sections before you wrote what you have spoken of as dated March 26th?

A. No; I believe not—not that I remember.

20 Q. How are the folding grooves in Exhibits 18, 20, 21, 22, and 23 made?

A. They are all made with a saw and a knife, except 23, and it is made with a knife only.

21 Q. When the grooves are made in sections like these Exhibits 18, 20, 21, and 22, and the sections are folded, do the grooves come on the outside or inside of the sections?

A. On the inside.

22 Q. Look at section 22; are not the grooves on the outside of that section?

A. No; they are not. I will tell you why they look so. Sometimes they did not bend easily and I took a knife and cut them a little on the outside so they would not sliver.

23 Q. From what material do you make sections like Root's Exhibit No. 23?

A. From the same material as strawberry boxes are made.

24 Q. Look at the box I now hand you and annex it to your deposition, marked Forncrook's Exhibit No. 5. Are sections made by you like number 23 made from the same kind of strips or bands which compose the sides of Forncrook's Exhibit Number 5?

A. Yes.

25 Q. In making sections like 23, do you take the strips prepared for boxes like Forncrook's No. 5 and cut them so as to make two strips for honey sections?

A. Yes.

26 Q. Have all the one-piece honey sections you have made been joined at one corner with nails?

A. Yes.

27 Q. Did you ever advertise honey sections for sale to the public?

A. No.

75 28 Q. Did you ever give to the public any description of honey sections made by you, except the publication in March or April, '76, which you have spoken of?

A. I never published any other; never advertised it.

29 Q. Did you ever write a letter to Mr. J. A. Osborne, counsel for defendant in this cause, about honey sections?

Objected to by defendant's counsel as incompetent, irrelevant, and immaterial.

A. Yes.

30 Q. Has that letter been published?

A. Yes.

31 Q. Look at the pamphlet I now hand you, state what it is, and annex it to your deposition, marked "Forncrook's Exhibit No. 6."

Defendant's counsel makes same objection as to interrogatory No. 31.

A. It is Juvenile Gleanings in Bee Culture for August, 1883.

32 Q. Look on pages 490 and 491 of that pamphlet and state whether or not the letter you have said you wrote to Mr. Osborne is printed on those pages.

Defendant's counsel objects to question as incompetent, irrelevant, and immaterial, and also because the original letter is still in existence and in the possession of defendant's counsel, and same can be produced at the trial if the same shall be relevant and material.

Counsel for complainant gives notice to the defendant's counsel to produce the letter written by witness to said counsel May 11th, 1883, so that witness may be cross-examined upon it at this time.

Defendant's counsel states that said letter is on file in his office, in Cleveland, Ohio, and defendant's counsel still objects for the reasons stated.

A. Yes.

76 33 Q. I suppose you consider Root's Exhibit 23 a better and more available section than sections like Root's Exhibits 19 and 24?

Defendant's counsel objects to question as incompetent, irrelevant, and immaterial.

A. Yes; for my business.

34 Q. Do you mean for your business alone or for the bee keepers generally?

A. Yes; for myself and my business and for honey buyers generally; they always objected to heavy wood or heavy sections; they did not like to buy so much wood.

35 Q. Who first asked you to testify in this cause, and when?

A. Well, I don't remember when; it was Mr. Osborne; in April, I believe; it was in the spring of this year.

36 Q. Don't you feel a little interested in beating Forncrook's patent in this lawsuit, if you can?

A. Well, no; I don't feel any interest in it. I have no personal interest in it. I feel a little interest in it.

37 Q. Wouldn't you prefer that Forncrook's patent should be beaten in this lawsuit, if it can be?

A. Certainly; of course I would.

Redirect examination:

1 Q. Mr. Fiddes, will it make any difference to you personally, one way or the other, whatever may be the result of this lawsuit?

A. No.

2 Q. Is the interest which you say you feel any more than what bee keepers in general would be expected to feel in knowing the result of this case?

A. No.

The following questions having been overlooked by counsel for defendant, he desires to ask them in chief:

3 Q. Is the comb in the top of A. I. Root's Exhibit No. 20 any part of the structure or frame?

A. No; no part of it.

4 Q. Was said Exhibit No. 20 made all in one piece?

A. Yes.

77 5 Q. I see that said Root's Exhibit 20 has nails in two of its corners; who drove those nails in?

A. I did. When — pulled the section out of the hive it came apart and I drove the nails in to preserve it and hold it together.

Recross-examination:

Counsel for complainant wishes to ask a question omitted on the cross-examination.

Q. Look at Forncrook's Exhibit No. 5. Are the cross-grooves on the strawberry-box material of which such boxes are made put into the strips or flats at the same time that said strips or flats are cut from the log or block?

Defendant's counsel objects because question — irrelevant or immaterial.

A. Some of them are and some are not. I have lots that are not.

2 Q. What proportion of the flats that you purchase are cross-grooved when you purchase them and what proportion not?

A. Probably a tenth part are not marked; some bunches more, some less; nine-tenths are marked.

Further redirect examination by defendant's counsel:

1 Q. Are the sections which you say you make of strawberry-box stuff much of the same or a different kind of strawberry-box material than such as is found in Forncrook's Exhibit Number 5?

A. No; I don't think it is the same; one is a little wider than the other.

2 Q. Examine the cross-scoring on Forncrook's Exhibit No. 5 and say whether the cross-scoring is like that in A. I. Root's Exhibit No. 23?

A. No; not in these two.

ALEXANDER FIDDES.

78 *Deposition of E. H. Coltrin.*

ELECTA H. COLTRIN, being duly sworn, testified as follows:

Direct examination:

1 Int. State your name and residence.

A. Electa H. Cotrin; Burkside township, Clinton county post office, Centralia, Illinois.

2 Int. Where were you living during the months of April, May, June, and July, 1883?

A. During the month of April and a part of May I was living in Norwalk, Putnam county, Florida; since that time have been living on my farm in Clinton county, Illinois.

3 Q. Do you expect to return to Florida; and, if so, how soon?

A. I do; probably during the month of October.

4 Q. Have you been engaged in any business since 1874? And, if so, you may state what your business has been.

A. I can't say that I have been personally engaged in any business until since the death of my husband, in 1877. My husband's general business before his death was and mine since has been that of fruit raiser.

5 Q. Have you at any time, and, if so, when and how long, owned and had the car- of bees?

A. I first bought five stands of bees in April, 1875. I took charge of them personally all the time from that time until this.

6 Q. Have you used sectional honey frames during the time you have had charge of bees?

A. Yes; I have.

7 Q. Please state the different kind- of sectional honey frames you have used.

A. If you mean sectional boxes, strictly speaking, I have used four kinds. I used first, after purchasing the bees, one-piece sectional frames, made by Mr. Fiddes, of which the sample I
79 now produce and attach to my deposition, marked A. I. Root's Exhibit No. 25, is one.

8 Q. Is the exhibit which you have attached to your deposition, marked A. I. Root's Exhibit No. 25, one of the first lot of one-piece sections you purchased of Mr. Fiddes, as stated in your last answer?

A. It is one of the first and only lot of one hundred I ever purchased of him.

9 Q. When was it you purchased the sections of which Root's Exhibit 25 is one?

A. Some time during the summer of '75.

10 Q. Have you used one-piece sections each year from 1875 to the present time?

A. I have never used any other variety; yes.

11 Q. Have you any other samples of one-piece sections with you which you have used during the time stated?

A. Yes.

12 Q. Will you please produce them and attach them to your deposition?

A. Yes; I produce four samples, marked "A. I. Root's Exhibits 26, 27, 28, and 29," respectively.

13 Q. When and during what portion of the time from 1875 to the present time have you used sectional honey frames like these different exhibits which you have produced and attached to your deposition, respectively?

A. I first used these like 25, and found them both too large and too heavy. The demand here was for a thinner wood and a frame holding about one pound each. I had some material for pint raspberry boxes, and the thought struck me that by bending them and not putting — the bottom I could make a section box that suited me better; I did so and the first made were similar to sample 27, which is made of one piece of wood fastened with a tack at the upper side. The corners are made with a saw, beveled, I believe they call it, on the inside similar to A. I. Root's Exhibit No. 24, so far as the thickness of the wood will allow, bee insets on both sides of the
80 bottom of the section. After the first season I became more careless in the construction of them, and made them like No. 27, except that the inset was frequently only made on one side the bottom, as shown in Root's Exhibits No. 29 and 28. Root's Exhibit No. 26 I have generally used just for my own consumption, but for

marketing purposes I have used the smaller frames; No. 26 I have often made and used with insets on both sides, but the sample has inset on only one side.

14 Q. During what years since 1875 have you used sectional honey frames like A. I. Root's Exhibit No. 27?

A. More or less during all the years from that time until now.

15 Q. During what years since 1875 have you used sectional honey frames like A. I. Root's Exhibits 26, 28, and 29.

A. Have used them all the time, more or less.

16 Q. A moment ago I opened and closed A. I. Root's Exhibit No. 29 in your presence. Is there or has there been any change whatever made in said exhibit from the time you first produced it here before the notary?

A. None whatever.

17 Q. Are the one-piece sectional honey frames of the different kinds of which you have produced samples marked as A. I. Root's Exhibits No. 25, 26, 27, 28, and 29 practical and available as sectional honey frames?

A. They are, and much cheaper than those we buy made specially for the purpose of manufacturers.

Cross-examination by counsel for complainant:

Int. 1. Mrs. Coltrin, I suppose that the lot of one hundred you purchased of Mr. Fiddes are all you ever purchased of him?

A. Yes, sir.

81 2 Int. Were all you ever used like Exhibits 26, 27, 28, and 29 made by yourself?

A. Yes; all made by myself, on my place. I bought the material and made it into sections.

3 Int. Did you ever make for sale or sell sections like 25, 26, 27, 28, and 29?

A. I never made them for sale nor sold any, except after they were filled with honey; have sold the empty sections with hives of bees, but not separately.

4 Int. Are you a dealer in hives?

A. I am not.

5 Int. How many hives, Mrs. Coltrin, did you ever sell with sections in them?

A. Not more than nine or ten; I think nine.

6 Int. Were these hives that you had ceased using?

A. No, sir; they were hives of bees. I sold to reduce the number, because I was not able to take care of them.

7 Int. How high in number — swarms have you gone in bee culture?

A. Never higher than twelve at any one time.

8 Int. Did you manufacture sections like 25, 26, 27, 28, 29, and give them away?

A. In one sense I did; I gave sections with hives sold, but I never made a business of it. I did not manufacture and give them away, except in a very few instances, in a friendly way, to a neighbor;

have given a sample sometimes, to show how they were made, to a neighbor.

9 Int. How many bee keepers in all have you given them to *is* a friendly way?

A. I have given them to four parties this year.

10 Q. Where were these sales or gifts of honey sections—in the hives or otherwise?

A. I showed Mr. Fiddes a section similar to No. 27, Root's exhibit, as long ago as the spring of '76, but whether I gave him one or he took one I could not say. With that exception I have not given or sold any until 1880. Up to 1880 I made merely what I wanted to use.

Re-examination:

82 1 Int. During the years 1875, '76, and '77 did you market any honey in sectional honey frames like those you have produced and attached to your deposition?

A. I marketed very little in '76; what little I did I sold in No. 25, Mr. Fiddes' make. In 1877 I marketed honey in sections similar to Root's Exhibit- No. 27, 28, and 29; don't know how much, but not a great deal. It was a bad season for bees.

ELECTA H. COTRIN.

UNITED STATES OF AMERICA, }
State of Illinois, Marion County, } *ss:*

Personally appeared before me, S. A. Frazier, a notary public in and for said county and State aforesaid, on this 24th day of September, A. D. 1883, Alexander Fiddes and Electa H. Coltrin, witnesses whose names are subscribed to the foregoing depositions, both residing out of the said northern district of Ohio and more than one hundred miles from the city of Cleveland, in said district, and I hereby certify that the foregoing depositions by them subscribed, as above set forth, were taken at my office, in the city of Centralia, Illinois, by agreement of parties, all objections to said depositions being waived, except for irrelevancy and incompetency; that said witnesses were first sworn to testify the truth, the whole truth, and nothing but the truth, and that the depositions by them subscribed, as above set forth, were reduced to writing in the presence of said witnesses and were subscribed by said witnesses in my presence; that said depositions have remained in my exclusive possession and control for the purpose of being sealed up and transmitted to the clerk of said circuit court of the United States for the north-
83 ern district of Ohio. I further certify that I am not of counsel or related to either of the parties to this suit or otherwise interested in the event of the same.

In witness whereof I have hereunto subscribed my name and affixed my seal this 24th day of September, A. D. 1883.

S. A. FRAZIER,
Notary Public.

Stipulation.

In the Circuit Court of the United States for the Northern District of Ohio. In Equity.

JAMES FORNCROOK, Comp't, *vs.* AMOS I. ROOT, Def't.

In the above cause it is hereby stipulated that the depositions of Alexander Fiddes and Electa H. Coltrin, of Centralia, Illinois, to be produced at the trial of said cause, be taken before S. A. Frazier, notary public, at Centralia, Illinois, to be read on behalf of said defendant, all objections as to notice, time, place, and manner of taking said depositions and all objections, except as to competency and relevancy, being waived.

WM. P. WELLS,
Sol'r for Comp't.
J. A. OSBORN,
Att'y for Def't.

Signed at Centralia, Ill., this 24th day of September, 1883.

And afterwards, to wit, on the 8th day of October, A. D. 1883, the following depositions were filed in said cause in said court, viz:

84 Circuit Court of the United States for the Northern District of Ohio. In Equity.

JAMES FORNCROOK, Complainant, *vs.* AMOS J. ROOT, Defendant.

In this cause it is stipulated that the testimony of Elvin Armstrong and George B. Lewis, as witnesses to be produced on the part of the defendant, may be taken before George E. Giles, of Watertown, Wisconsin, all objections as to regularity of notice and form of taking said testimony being waived, but subject to objections for competency or relevancy.

Dated at Watertown this 19th day of September, A. D. 1883.

WM. P. WELLS,
Solicitor for Compl't.
J. A. OSBORNE,
Att'y for A. I. Root.

Deposition of E. Armstrong.

Circuit Court of the United States for the Northern District of Ohio.

JAMES FORNCROOK, Complainant,
against
AMOS I. ROOT, Defendant.

Testimony of Elvin Armstrong and George B. Lewis taken before me, Geo. E. Giles, commissioner by stipulation, at Watertown, Wisconsin, the 19th day of September, A. D. 1883.

Mr. F. B. Tuttle and W. P. Wells appear for the complainant; Mr. J. A. Osborne, for the defendant.

ELVIN ARMSTRONG, being duly sworn on behalf of the defendant, testifies as follows:

Q. No. 1. State your name, age, and residence.

A. Elvin Armstrong; age, 43; residence, Jerseyville, Illinois.

Q. No. 2. What is your business and how long have you been at it?

A. Manufacturing bee supplies and handling them. I
85 have been in the business for fourteen years.

Q. No. 3. Are you familiar with sectional honey frames generally and the principles of their construction?

A. Yes.

Q. No. 4. Take the model which I now hand you and examine it and state what it is, and attach the same to your deposition and mark it A. I. Root's Exhibit No. 3.

A. It is a sectional honey box or frame made of four pieces of wood with side insets and saw curve, which is now used for putting foundations in. I used said insets some seven years ago.

Q. No. 5. What was the shape of the inset?

A. The shape of it is the same as in exhibit shown as No. 1.

Q. No. 6. Examine this model now and attach it to your deposition and mark it as "Root's Exhibit No. 2," and state what it is.

A. It is a one-piece sectional honey frame without side insets or saw curve.

Q. No. 7. Examine this model now and state what it is, and attach it to your deposition as Root's Exhibit No. 3.

A. It is a one-piece section with side insets, both top and bottom, and a saw curve on top for putting foundation starters in.

Q. No. 8. State what invention or novelty there is, if any, in putting into such a sectional honey frame as No. 2 the other features which you have mentioned in Exhibit No. 3.

A. None.

Q. No. 9. What is Exhibit No. 3, if anything, other than a mere aggregation in a single frame of the various features that are found in it?

Counsel for complainant objects that the question asks the witness to give evidence in a question of law and that it is incompetent on that ground.

Ans. None.

Q. 10. What dependant co-operation is there, if any, existing between the several features found in Root's Exhibit No. 3?

A. There is none.

Cross-examination:

Q. 1. When and where did you first see honey frames made with insets like Exhibit No. 1?

86 A. I made them seven years ago.

Q. 2. Did the honey frames you then made have any other features of Exhibit No. 3 except the insets?

A. I cannot say positively, but the saw curve may have been made by me then; it certainly was in 1876. Both these features were used in one section by me.

Q. 3. Did you ever make any honey frames embodying any features except the insets and saw curve?

A. No, sir.

Q. 4. Do you claim to be a patent expert?

A. No, sir.

ELVIN ARMSTRONG.

Deposition of Geo. B. Lewis.

Mr. GEO. B. LEWIS, being duly sworn for the defendant, testifies as follows:

Q. 1. State your name, age, and residence.

A. Geo. B. Lewis; age, 51, and residence, city of Watertown.

Q. 2. What is your business?

A. Manufacturing bee-hives and sections and apiarian supplies generally.

Q. 3. How long have you been engaged in manufacturing bee keepers' supplies?

A. Some ten or eleven years.

Q. 4. Have you been manufacturing sectional honey frames and dealing in them during all of that time?

A. I think only for about eight years in the honey sections; previous to that it was hives only.

Q. 5. Are you familiar with sectional honey frames generally which have been in use among the bee keepers during the past 8 years and with their principles of construction and their uses?

A. Yes, sir.

Q. 6. Are you able to point out the points of difference and of similarity between the several sectional honey frames in use?

(Complainant's counsel objects to question that the witness has not been shown to be an expert.)

A. Yes, sir.

(Answer objected to on the same grounds.)

87 Q. 7. Are you familiar with the sectional honey frames covered by the letters patent issued to James Forncrook, the complainant in this case?

A. Yes, sir.

Q. 8. Do you know the history of the development of that section covered by the patent to James Forncrook?

A. I do.

Q. 9. Will you please give as briefly as you can a detailed account of the development of the sectional honey frame patented to the complainant?

A. Some time in the fall of 1877 Mr. Forncrook came to my office from the shop and showed me a plain, thin strip of wood with three transverse grooves scored across it, and saying to me what sort of a section will that make, and saying he thought it would make a good section if the damn thing would be strong enough at the joints. From that time he showed me at different times different kinds of wood scored in the same manner. In the fall of 1877, in October, Mr. Parks came into copartnership with me, and, seeing some of these samples of scored pieces laying around the office, *and* questioned me as to devising some machinery for the purpose of manufacturing of sections on this principle of cross-scoring or transverse grooves. I asked Mr. Forncrook if he could devise a machine for scoring these sections; his reply was that he thought he could. I told him to go to work and see what he could do towards getting a machine for that purpose

(All testimony asked as to the machine for making these frames is objected to by complainant's counsel as too relevant.)

(Answer continued:) The machinery was constructed and the section completed as — is now placed on the market for sale some time in Dec., 1877, although perfected samples were made as early as September, 1877. That is the history as far as I know.

I desire to make a correction in my answer. I think it was in the spring of 1877 instead of in the fall that Mr. Forncrook
88 first showed me the samples.

Q. 10. You state that Mr. Parks came into partnership with you in your business about the first of October, 1877. What was the style of your firm and who composed the firm from that time on?

A. The style of the firm was Lewis and Parks. Chas. E. Parks and Geo. B. Lewis were the members.

Q. 11. What was the style of the firm and who composed it prior to Oct., 1877?

A. G. B. Lewis.

Q. 12. How long have you known James Forncrook?

A. Some fifteen years, I think.

Q. 13. What has been the business of Mr. Forncrook during the time you have known him, if you know?

A. I do know. The first knowledge I had of him was when the company was R. E. and G. B. Lewis, if I remember. My brother was in — company at that time. He was first employed as a hand

by E. R. and G. B. Lewis; afterwards as foreman in the shop, and he served in the capacity of foreman from that time until he quit.

Q. 14. In what capacity was he serving you during the year 1877 and up to the time when he quit?

A. As foreman.

Q. 15. What were his duties as foreman in your shop in the year 1877 and from that time until he was discharged?

A. He had full charge of the manufacturing of the goods, filling the orders, and care of the machinery.

Q. 16. Were the relations between you and Mr. Forncrook such as to necessitate your advising with him often about the work in the shops and the different changes and improvements to be made in the management of your business?

A. They were.

Q. 17. Will you please fix, as near as you can, the date of your first conversation with Mr. Forncrook about this sectional honey frame?

A. We had a conversation in regard to making sections of
89 our piece some time in June, I think it was, 1876.

Q. 18. Where was this conversation had?

A. In my shop.

Q. 19. Was any one present besides yourself and Mr. Forncrook?

A. I think not.

Q. 20 You may relate that conversation, as near as you can.

A. It was in relation to making one-piece sections from strawberry-box material. Some conversation was had as to how they could be constructed; how they could be cut out for side insets, &c. I can't remember very much of the conversation. Mr. Forncrook thought they would be too light—too slender—and I suggested the idea of making them double thickness—two thicknesses—and there was some conversation had as to insets or bee entrances. I made a remark that a quantity might be clamped together and the recess formed by running over the rab-*itting* head or dado lead, as it is sometimes called. That is all I can remember at present.

Q. 21. Was anything said at that conversation as to the size of the insets?

A. There was not that I can remember of.

Q. 22. When was the question of putting insets in the sections first talked about after that between you and Mr. Forncrook?

A. The sections all had insets that we manufactured.

Q. 23. When first, after having the conversation which you have just related, was there any conversation between you and Mr. Forncrook as to putting bee entrances or side insets into sectional honey frames made of a single piece of wood?

Ans. I think it was in November, 1878.

Q. 24. Where was that conversation had?

A. In the shop.

Q. 25. Was any person present at that conversation besides you and Mr. Forncrook?

A. There were some of the workmen in the shop, but I can't state who they were, and don't know that they were listening to any conversation between us.

90 Q. 26. You may relate that conversation.

A. Mr. Forncrook had been manufacturing the sections by sawing with a saw the side insets.

(Counsel for complainant objects that the testimony as to the process of manufacture is irrelevant.)

Answer continued: Cutting them, the insets, clear to the corners. I suggested the idea of cutting the insets to the dado or rabbiting lead, and cutting them only part way across, not clear to the corners. Mr. Forncrook objected to this manner of cutting, saying that it was necessary for the inset to run from corner to corner so that the sections could be glassed, and I insisted and directed Mr. Forncrook to manufacture after that with the side insets running part way across, and if any bee keepers wanted them for glassing we could easily make the inset clear across by running the material twice. That was all the conversation I remember at that time.

Q. 28. You state that you suggested to Mr. Forncrook the idea of putting insets part way across; what invention was there in making these insets part way across, if any?

(Counsel for complainant objects that the question is incompetent because it calls for the opinion of the witness on a question of law.)

A. In my opinion there was none.

Q. 29. What was the object of putting them part way across instead of clear across.

A. They were manufactured more cheaply and answer just as well.

Q. 30. Why could they be made more cheaply?

A. Because once passing the material over the dado head was enough, and to cut them clear across necessitated cutting them twice or having different size dado heads for every size of section that was ordered. That is all.

Q. 31. Was there anything said in either of these conversations which you have detailed about the guide groove for foundation starters?

A. Nothing that I can remember of.

Q. 32. When was it that you first saw a completed section
91 as they are now made according to the specifications of the Forncrook patent?

A. According to the specifications of the patent they were first made in September, 1878.

Q. 33. Where did you see one of these complete Forncrook sections at that time?

A. In Lewis and Parks' shop.

Q. 34. How long have you known of side insets being used in sectional honey frames?

A. Some ten or twelve years.

Q. 35. How long have you known of longitudinal guide grooves for fastening in foundation starters being used in sectional honey frames?

A. The same length of time—some ten or twelve years.

Q. 36. Where did James Forncrook do the work on the one-piece sections of which you have given us the history?

A. In our own shop.

Q. 37. What difficulties were to be overcome in getting up the one-piece section according to the plan set up in the Forncrook specifications?

(Questions withdrawn for the present.)

Q. 37. Was there any trouble or difficulty to be overcome in developing and making the one-piece section described in the specifications annexed to the letters patent issued to James Forncrook?

A. There was.

Q. 38. What was the trouble in getting up these one-piece sections just spoken of?

A. The trouble was to devise machinery for cutting the cross-scores or triangular grooves; all other features of the section our machinery in the shop was adapted to.

(Complainant's counsel objects to the answer as irrelevant and incompetent because it relates to the machinery for the manufacturing of the section.)

Q 34. Was there any trouble or difficulty to overcome in putting into the Forncrook section the side insets with longitudinal guide grooves?

A. No difficulty whatever.

Q. 35. Are you a practical mechanic?

A. Yes, sir.

Q. 36. Are you familiar with bee culture?

A. From experience in handling bees I am not.

92 Q. 37. Look at A. I. Root's Exhibit No. 1, which I now hand you, and say what it is.

A. It is designed to represent a honey section; it can be used as a honey section.

Q. 38. Give a detailed description of it.

A. It is what we call a nailed section with closed or tight top, with a longitudinal guide groove or comb starter and a bottom recess for bee entrance.

Q. 39. You may take A. I. Root's Exhibit No. 2 and state what it is.

A. It is a section made of one piece to be nailed at its ends; it has no side insets or longitudinal guide groove.

Q. 40. Take the model which I now hand you and state what it is, and attach it to your deposition and mark it as A. I. Root's Exhibit No. 4.

A. It is a nailed section made of 4 pieces of wood; what forms the top and bottom are made narrower than the side; it has no guide or comb starter.

Q. 41. Take this model which I now hand you and state what it is, and attach it to your deposition and mark it as "A. I. Root's Exhibit No. 5."

A. It is what I call a 4-piece section dovetailed together; it is composed of 4 pieces, with what is intended for top and bottom made narrower than the sides; it has no guide groove or comb starter.

Q. 42. Please take the model which I now hand you and examine it and state what it is, and attach the same to your deposition as "A. I. Root's Exhibit No. 6."

A. It is the same as the last described, with the exception that the top is grooved for a comb starter.

Q. 43. Take the model which I now hand you, examine it, and state what it is, and attach the same to your deposition as "A. I. Root's Exhibit No. 7."

A. It is a sectional honey frame made of one piece of wood, having three transverse folding grooves, dovetailed or interlocked
93 at the fourth corner; has no side insets or guide groove.

Q. 44. Please take the model which I now hand you, examine it, and state what it is, and attach it to your deposition as "A. I. Root's Exhibit No. 8."

A. It is made of one piece of wood, with four transverse folding grooves; it has side insets both top and bottom for entrance of bees; no guide groove; the ends are lapped together and fastened with small tacks.

Q. 45. Please take the model which I now hand you, examine it, and state what it is, and attach it to your deposition as "A. I. Root's Exhibit No. 9."

A. It is made of one piece of wood, with three transverse folding grooves to be nailed at the ends; has side insets for bee entrance in the bottom; no guide groove; and what we call a wide-top section.

Q. 46. Please examine the model which I now hand you and state what it is, and add it to your deposition as "Root's Exhibit No. 10."

A. It is a honey section made of one piece of wood with 4 transverse "V"-shaped folding grooves, with a portion of each side of what represents the bottom scalloped or rounded out part way to the corners to form bee passage; the ends are lapped and tacked together; it is also what we call a tight-top or wide-top section.

Q. 47. How long have you known of sectional honey frames like A. I. Root's Exhibit No. 4 being used?

A. Some ten or twelve years.

Q. 48. Do you know of sectional honey frames like A. I. Root's Exhibit No. 5 being used; and, if so, for how long?

A. Some ten or twelve years.

Q. 49. Do you know of sectional honey frames being used like A. I. Root's Exhibit No. 6; and, if so, for how long?

A. The same length of time—ten or twelve years.

Q. 50. I now hand you model marked "A. I. Root's Exhibit No. 3," and ask you to state what it is.

A. It is made of one piece of wood and three transverse V-shaped folding grooves, interlocked or dovetailed at its ends, having
94 its top and bottom recessed for bee entrance, the corners of the recess being cut on a level with a guide groove in the top as a comb starter.

Q. 51. What name is given to section marked "A. I. Root's Exhibit No. 3?"

A. I have seen them marked as the "Boss" one-piece section and made by Forncrook and Co.

Q. 52. Is that substantially the same section covered by the patent issued to James Forncrook?

A. The side insets are not made the same as represented in the specifications to the Forncrook patent.

Q. 53. What features, if any, are to be found in the sectional honey frame alleged to have been invented by James Forncrook and described in the specifications annexed to his letters patent which are not to be found in some of the other exhibits attached to your deposition?

(Counsel for complainant objects that the question is incompetent, because it assumes that the witness knows the specifications of the Forncrook patent, which does not appear, and which also calls for the witness' testimony to a legal conclusion.)

Question withdrawn for the present.

Q. 54. Have you read the specifications or a certified copy of the same attached to the letters patent issued to James Forncrook *patent* and mentioned in complainant's bill of complaint?

A. I have seen it and read it several times.

Q. 55. Now, I repeat question No. 53.

(Objection repeated that the witness' opinion is asked for to a legal conclusion.)

A. I could see no difference.

Q. 56. Do you wish to make any further answer to the last question?

A. I do not.

Q. 57. Did you fully understand question 53 when you first answered it?

A. I did not.

Q. 58. Do you wish the question 53 repeated to you?

A. I have no objections to its being repeated.

Q. 59. How did you understand question 53?

A. I understood you to ask if all the features found in the
95 Forncrook patent are to be found in any one of the other exhibits.

Q. 60. Then if I ask you if there were any other features to be found in the Forncrook sections than there are to be found in some of the other sections, will you or did you understand the question?

A. I did not.

Q. 61. Then I will repeat question No. 53: What features, if any, are to be found in the sectional honey frames alleged to have been invented by James Forncrook and described in the specifications annexed to his letters patent which are not to be found in some of the other exhibits attached to your deposition?

(Objection repeated.)

A. I can't find any of the features in the Forncrook section but what are shown in some of the exhibits.

Q. 62. What different function, if any, has the side inset to perform in the Forncrook section than it has in a section like "A. I. Root's Exhibit No. 1?"

A. The difference is that — the top and bottom and it admits of the passage of bees into both tiers of section, while the exhibit admits in only one.

Q. 63. What different function has the longitudinal guide groove to perform in the Forncrook section than it has in sectional honey frames like "A. I. Root's Exhibit No. 1?"

A. Not any difference in its function.

Q. 64. What different function, if any, has the side inset to perform in the Forncrook section than it has in "A. I. Root's Exhibit No. 8?"

A. There is none.

Q. 65. What different functions, if any, has the side inset to perform in the Forncrook section than it has in sectional honey frames like "A. I. Root's Exhibit No. 4?"

A. Not any difference.

Q. 60*a*. What different functions, if any, has the side insets in the Forncrook section to perform than the side insets like "A. I. Root's Exhibit No. 6?"

A. No difference.

Q. 61*a*. What different functions has the longitudinal guide groove to perform in a sectional honey frame alleged to have been invented by James Forncrook than it has in sectional honey
96 frames made like "A. I. Root's Exhibit No. 6?"

A. No difference.

Q. 62*a*. What dependant co-operation is there, if any, existing between the several features of the Forncrook section.

(Complainant's counsel object- that the question is imcompetent, because it calls for the opinion of the witness on a question of law.

A. There is no dependant co-operation in all the features.

Q. 63*a*. Please examine the model I now hand you, state what it is, and attach it to your deposition as "A. I. Root's Exhibit No. 11."

A. It is a one-piece section with three triangular cross scores or grooves, dovetailed or interlocked at its end, longitudinal guide grove in the top for a comb starter; the bottom is recessed, not running clear to the corners, and cut on a level; it is what we call a wide-top section.

Q. 64*a*. Is there any difference in "A. I. Root's Exhibit No. 3" and "A. I. Root's Exhibit No. 11?"

A. One is what we call an open-top section for tiering up and No. 11 is wide-top or single tier of section.

Q. 65*a*. What different uses are made of the tight-top and the open-top section?

A. They are both used for honey.

Q. 66. When are the tight tops used?

A. They are sometimes used in one-and-a-half story high.

Q. 67. When are the open tops used?

A. They are sometimes used for the second tier of sections when they do not care for ventilation; they put on a tier of open tops and tight tops on top of them. In the open-top section it is so that the bees can pass into the upper tier.

Q. 68. Examine the model which I now hand you, attach it to your deposition as "A. I. Root's Exhibit No. 12," and state what it is.

A. It is a honey section.

Q. 69. Is there any difference between "A. I. Root's Exhibit No. 12" and the model marked "A. I. Root's Exhibit 11?"

A. There is.

Q. 70. Will you please point out the difference between them?

97 A. The cross-scoring is different; the side insets are cut different; Exhibit No. 12 has no guide groove; the dovetailing is substantially the same, except that the machine for dovetailing is set a little different.

Adjourned until Sept. 20th, at 8.30 a. m., at my office in the city of Watertown, Wisconsin.

GEO. E. GILES,
Commissioner.

SEPT. 20TH—8.30 a. m.

Continuation of Mr. LEWIS' examination:

Q. 71. Will you please point out the difference in the transverse grooves in the models to which I last called your attention?

A. One has a square cut across and the other a V-shaped or angular groove.

Q. 72. What is the difference between the sectional honey frames described in the specifications annexed to James Forncrook's patent and Root's Exhibit No. 11?

A. The specifications and drawings show a section with an open top and do not describe a section like Exhibit 11.

Q. 73. Have you known of J. Forncrook manufacturing and selling honey frames like Exhibit No. 11?

A. I have seen the sections in the hands of other parties, who said they had purchased them of James Forncrook. I do not know of my own knowledge.

Q. 74. Is the difference which you have pointed out between the sections made like Exhibit No. 11 and the sections made in accordance to specifications annexed to letters patent issued to complainant material?

A. It is material.

Q. 75. What, if any, difference is there between "A. I. Root's Exhibit No. 12" and sectional honey frames made in accordance with the specification annexed to James Forncrook's patent?

A. The difference is that Exhibit No. 12 has square-cut cross-grooves and no guide groove, and open at the bottom only.

Q. 76. In answer to the question yesterday as to whether there was any dependant co-operation existing between the dependant features in the Forncrook section, I understood you to say there

was between some of them. Will you please point out be-
98 tween what features there is any dependant co-operation?

A. I don't understand this question now.

Q. 75*a*. If the side insets are left out of Exhibit No. 3 could it still be available as a honey section?

A. It could.

Q. 76*a*. If the cross-scoring was omitted from the sections like Exhibit No. 3 and the corners nailed instead of dovetailed would it still be available as a honey section?

A. It would still be available as a honey section.

Q. 77. If the guide grooves were omitted from the same section would it still be available as a honey section?

A. It would.

Q. 78. Then what, if any, dependant co-operation is there existing between the several features of the Forncrook section?

A. There is none.

Q. 79. What is the Forncrook section, if anything, more than a mere aggregation of the different features found in it?

(Counsel for complainant objects that the question is incompetent because it asks the witness to testify upon a question of law.)

—. It is a mere aggregation, as all the parts were well known to me and others at the time of its manufacture in the shop.

Q. 80. Do you know what invention or novelty, if any, there was in putting into the Forncrook section the side insets?

(The same objection made by complainant's counsel that was made as to the last question.)

A. There is no novelty to it; it was well known.

Q. 81. What, if any, invention or novelty was there or is there in putting in such a blank as "A. I. Root's Exhibit No. 2" the additional features found in the Forncrook section?

A. There is no novelty or invention about it; any one in the shop knew what it was.

Q. 82. Would "A. I. Root's Exhibit No. 2" be practicable and available as a sectional honey frame?

A. It is.

Q. 83. Is "A. I. Root's Exhibit No. 7" practicable and available as a sectional honey frame?

A. It is.

Q. 84. Is "A. I. Root's Exhibit No. 9" practicable and avail-
99 able as a sectional honey frame?

A. It is.

Q. 85. Is "A. I. Root's Exhibit No. 1" practicable and available as a sectional honey frame?

A. It is.

Q. 86. Is "A. I. Root's Exhibit No. 6" practicable and available as a sectional honey frame?

A. It is.

Q. 87. Is "A. I. Root's Exhibit No. 8" practicable and available as a sectional honey frame?

A. It is.

Q. 88. Examine the book I now hand you and state what book it is.

A. "Manual of the Apiary," by A. I. Cook, professor of entomology in Michigan State Agricultural College, 2nd edition, Thomas G. Newman, publisher.

Q. 89. Take the publication which I now hand you and state what it is and attach it to your deposition as "A. I. Root's Exhibit No. 13."

A. Readings in Bee Culture, published monthly at Medina, Ohio, by A. I. Root, April, 1876.

Q. 90. I call your attention to the article marked on page 76. I will ask you to state whether a person familiar with sectional honey frames and their uses *which*, from the description given on page 76 of "A. I. Root's Exhibit No. 13," could make such a sectional honey frame as "A. I. Root's Exhibit No. 10?"

A. They could.

Q. 91. After the completion of the one-piece section in your shop, as already stated, and prior to James Forncrook's application for his patent, did the firm of Lewis and Parks make any effort to put said one-piece section on the market?

A. We did.

Q. 92. You may state what you did to put such sections on the market during the time mentioned.

A. We advertised it in "Gleanings of Bee Culture," in the "American Bee Journal," and by exhibiting them at fairs and sending samples to bee keepers.

Q. 93. To what fairs did you send the samples for exhibition, and when?

A. To the Wisconsin central fair, in September or October, 1877, and at the bee convention in Hartford, in this State. I can-
100 not remember at present of any others.

Q. 94. Who prepared the one-piece sections which were sent to the Wisconsin State fair in September, 1877, by your firm?

A. James Forncrook.

Q. 95. Did James Forncrook prepare said sample under the direction of Lewis and Parks?

A. He did.

Q. 96. Who prepared the samples to be sent to the bee convention you have spoken of?

A. James Forncrook.

Q. 97. Under whose directions?

A. Lewis and Parks.

Q. 98. Did Lewis and Parks, during the fall of 1877, place samples of said section on exhibition at any other places than those you have already mentioned?

A. I took some to Thomas G. Newman, of Chicago, Illinois, and different parties wrote for samples; we sent them to parties that ordered them.

(Counsel for complainant objects to that part of the answer which relates to parties writing for samples unless the letters are produced.)

Q. 99. During the time inquired about, did you advertise said sections for sale in any other manner than by exhibiting them at the places you have mentioned, by sending samples to persons who ordered them, and by advertising in the journals which you have mentioned?

A. We did, by using price-lists and circulating them among bee keepers.

Q. 100. Examine the pamphlet or circular which I now hand you and state what it is and attach the same to your deposition as "A. I. Root's Exhibit No. 4."

A. A circular and price-list published by Lewis and Parks in 1879.

Q. 101. Are said one-piece sections advertised in said circular and price-lists?

A. They are.

Q. 102. What time was said circular and price-list issued?

A. It was issued in the fall of 1878, but dated 1879.

Q. 103. Were those price-lists circulated among bee keepers by Lewis and Parks?

A. They are.

Q. 104 How?

101 A. By mailing to bee keepers throughout the country; we mailed some 3 or 4 thousand of them.

Q. 105. By what name did you designate that one-piece section in your advertisement and price-lists, or did you designate it all?

A. We designated it as the "Lewis one-piece section."

Q. 106. Was James Forncrook in the employ of Lewis and Parks during the time of your advertising said one-piece section in the manner you have stated?

A. He was in our employ.

Q. 107. Did James Forncrook know of the efforts then being made by Lewis and Parks to introduce said sections to the public?

A. He did know it.

Q. 108. Did he at any time during the time mentioned make any claim to being the inventor and owner of said section?

A. None whatever.

Q. 109. Did he at any time during the time mentioned ever object to Lewis and Parks manufacturing, selling, and placing upon the market said one-piece sections?

A. He never did.

Q. 110. Did he know that Lewis and Parks were advertising said section for sale in the journals and price-lists which you have mentioned?

A. He did know it.

Q. 111. At what time did James Forncrook leave the employ of Lewis and Parks?

A. I think it was in June 1878.

Q. 112. Prior to that time, had any of these one-piece sections been sold by Lewis and Parks?

A. There had been some sold.

Q. 113. How many, according to your recollection?

A. About one hundred thousand, to the best of my recollection; my books would show exactly.

Q. 114. Did James Forncrook assist in making these one hundred thousand sections manufactured and sold by Lewis and Parks during that time?

A. He did.

Q. 115. Is "A. I. Root's Exhibit No. 12" alike or substantially alike the sectional honey frame described in the Forncrooks pecifications?

A. It is not like it.

102 Cross-examination of Mr. LEWIS by complainant's counsel:

Q. 1. What do you mean by saying that you are a practical mechanic?

A. I mean that I have learned the carpenter's trade.

Q. 2. How long were you learning it?

A. Three or four years.

Q. 3. After you had learned it how long did you work at it?

A. I think some two or three years.

Q. 4. Ever worked at it since that?

A. Well, not directly at carpenter and joiner work.

Q. 5. After you left off the carpenter's trade what did you work at?

A. I farmed it two or three years.

Q. 6. After that what did you do?

A. I came West and worked in a sash and blind factory in Milwaukee.

Q. 7. How long?

A. In Milwaukee for about 8 months; I was at Sheboygan Falls about a year, working at the same business.

Q. 8. What did you do next?

A. I went back East and farmed it for probably two years.

Q. 9. State what has been your business subsequently up to the present time.

A. I came here to Watertown in 1860; went into the sash and door business at my present place in company with a brother, and I followed the manufacture of sash, doors, and bee-hives up to the present time.

Q. 10. When did you leave the partnership with your brother?

A. About 12 years ago.

Q. 11. Is Chas. E. Parks any relation to you?

A. Yes, sir; my son-in-law.

Q. 12. Is he in partnership—in business with you now?

A. No, sir.

Q. 13. When did he go in partnership with you?

A. I think the first of October, 1878.

Q. 14. Did you swear yesterday that the partnership was formed in October, 1877?

103 A. I do not know that I swore positively that it was so.

Q. 15. You say that James Forncrook left your employ in June, 1878, you think?

A. I said that, but now I think it was a year later.

Q. 16. Have you sworn this morning that a hundred thousand of these sections had been sold by you prior to June, 1878?

A. I swore about a hundred thousand, as I said. The date was wrong by one year.

Q. 17. What has caused you to alter your testimony as to the dates now?

A. Before coming here yesterday I had not refreshed my memory by any papers or books or anything of the kind to remember by.

Q. 18. When did you refresh your memory?

A. This morning.

Q. 19. Before you began your testimony?

A. No, sir.

Q. 20. When?

A. Recently.

Q. 21. How recently?

A. Fifteen minutes ago.

Q. 22. Did you refresh your memory before or after you testified as to the sale of a hundred thousand?

A. After.

Q. 23. How did you refresh your memory?

A. By looking at my printed testimony in the case of Forncrook against Lewis and Parks.

Q. 24. Who called your attention to the mistake?

A. No one.

Q. 25. Were you concerned in a controversy with Forncrook before the Commissioner of Patents in reference to this one-piece section?

A. Yes, sir.

Q. 26. Were you alone in resisting his application for a patent?

A. I was not. Chas. E. Parks, who was in company with me, was with me in it.

Q. 27. What claim did you and Chas. E. Parks make to the one-piece section in that controversy?

A. We applied for a patent on the machine for manufacturing them.

Q. 28. My question was what claim you made in the controversy about the one-piece section?

A. I don't know as we made any claim.

104 Q. 29. Why were you concerned in the controversy about it, then?

A. Because the product of our machine, the article which it would manufacture, was shown in Forncrook's application for the patent on the one-piece section; hence the interference.

Q. 30. In the controversy about the one-piece section did you claim that the invention was yours because it was the product of your machine?

(Defendant's counsel objects because said question is irrelevant and immaterial.)

A. We claimed the invention of the section on the ground that if there was any novelty or invention in the section we were entitled to it for preparing machinery and constructing it cheaply enough to be placed on the market in competition with other sections, and advertising them and bringing them before the public so as to be of some public benefit.

Q. 31. How many of these sections had you manufactured and sold up to the time of your interference, as regards the one-piece section?

A. I have no idea without looking at my books.

Q. 32. Was it a million?

A. No, sir.

Q. 33. Half a million?

A. I should think not.

Q. 34. Four hundred thousand?

A. Probably in that neighborhood.

Q. 35. The intrinsic utility and value of that Forncrook section is the same whether it is manufactured cheaply or not?

A. Yes.

Q. 36. Do you regard the Forncrook section as you manufactured and sold it as an improvement upon your previous sections?

(Defendant's counsel objects, as it is incompetent, irrelevant, and immaterial.)

A. I consider it as an improvement over other kinds of sections at that time.

Q. 37. In what did the improvement consist?

(Defendant's counsel objects as incompetent, irrelevant, and immaterial.)

A. In being more convenient to put together.

Q. 38. From what features in the section did that convenience arise?

105 A. From cross-cutting or cutting the angular grooves not clear through.

Q. 39. Then, in your opinion, the superiority of the Forncrook sections over others arises solely from the way the transverse grooves are made?

A. That is the only advantage it has, in my opinion.

Q. 40. What were the defects or inferiority of sections previously made as compared with the Forncrook section?

(Defendant's counsel objects, as the question is incompetent, irrelevant, and immaterial.)

A. The former sections are superior to the Forncrook section, with one exception, for the convenience of bending together.

Q. 41. In what respects were the sections previously made superior to the Forncrook section?

A. They were much stronger; not so liable to break or come apart.

Q. 42. From what did that strength arise?

(Defendant's counsel objects same as above.)

A. Some of the previous sections were nailed together, others were dovetailed or interlocked at the four corners, and could not easily be broken, while the one-piece section is very liable to break at the fiber joints.

Q. 43. In your opinion, does a section nailed or dovetailed at the joints make a more solid or firm section than the Forncrook section?

A. The nailed section is much stronger; the dovetailed I can see no material difference as to the strength, only that the dovetailed one may be easily put together again if it breaks.

Q. 44. Then, in your opinion, a nailed section is a firmer, a stronger, and a more solid section than the Forncrook section?

A. Much so.

Q. 45. Then, sir, why did you advertise to the public as in "Exhibit 14" these words: "These sections are made from a single piece of lumber, and make a more solid and firmer section than if either nailed or dovetailed?"

A. Because they were not as liable in getting out of shape previous to being filled with honey, but, *as* in my opinion, did
106 not add to the strength, and, furthermore, as an advertisement to induce people to purchase them.

Q. 46. Is that the only explanation you have to make?

A. That is all.

Q. 47. Are not the solidity and firmness of a section, in your opinion, qualities that make up its strength?

A. It is not.

Q. 48. How long have you been familiar with bee-hives and sectional honey frames?

A. About ten years.

Q. 49. When did Forncrook first show you a thin strip of wood with 3 transverse grooves scored across it?

A. In February or March, 1878.

Q. 50. Then your testimony that he first showed you the strips in the fall of 1877 is a part of your mistake as to date?

A. Yes, sir.

Q. 51. When was the machinery constructed and the section completed as it now is placed on the market for sale?

A. It is placed on the market then different than now.

Q. 52. What did you mean in your direct examination by saying that the machinery was constructed and the section completed, as is now placed on the market for sale, some time in December, 1877?

A. It was a mistake on my part of date of one year.

Q. 53. Do you mean now that the machinery was constructed and the section completed, as is now placed on the market for sale, some time in December, 1878?

A. I say now it was in November or December, 1878?

Q. 54. How early were perfected samples made?

A. I have no recollections earlier than that date.

Q. 55. What, then, did you mean in your direct examination by saying that perfected samples were made as early as September, 1877?

A. It was only a discrepancy as to the manner of the side inset between the perfected section and the previous samples.

Q. 56. Were these sections manufactured with a beveled inset in 1878?

A. I don't know; I never saw any.

Q. 57. What do you mean by a distinction between the
107 perfected sections and the previous samples?

—. To mean that the perfected section was made with the side inset running part way across and that the previous samples were made by sawing the insets clear to the corner, to the best of my recollection.

Q. 58. When you began to manufacture the sections with machinery how was the inset made?

A. By sawing the inset clear to the corner.

Q. 59. How soon after you began to manufacture was the change made with respect to the insets?

A. A few days or perhaps a week or so; possibly two or three weeks.

Q. 60. Did you thereafter manufacture all the sections that you made with the inset in the latter way?

A. I think they all were—that is, all that were cut clear across with a saw. I think there was others that were manufactured and cut after that with the inset running clear across, but cut with a rab-*itting* head by running the material twice, as they were ordered in that manner.

Q. 61. When was it that you first had a conversation with Forncrook in relation to making one-piece sections from strawberry-box material?

A. I think it was in June or July of 1876 or 1877; I can't say which.

Q. 62. In your interference as to the one-piece section did you claim that the invention was an invention by Lewis and Parks on any ground other than that it was the product of your machine?

(Defendant's counsel objects that the question is incompetent and irrelevant.)

A. I don't remember of any.

Q. 63. Did you in that interference claim that the invention was yours or Lewis and Parks' on the ground of your making suggestions to Forncrook as to the invention?

(Defendant's counsel objects that the question was incompetent and irrelevant.)

A. I don't know as we made that claim, but we made suggestions to Forncrook.

Q. 64. Have you stated in your direct examination all the
108 suggestions you made to Forncrook?

A. No, sir.

Q. 65. What suggestions did you make to him that you have not stated?

A. I made suggestions constantly to Mr. Forncrook in regard to its manufacture and construction in all of its parts.

Q. 66. Did you make any suggestions to him about the guide groove?

A. Only as to the cheapest and best way to do it.

Q. 67. What did you mean, then, by testifying in your direct examination that nothing was said about the guide groove between you?

A. I mean that there was nothing said as regards its being novel or new; they were merely suggestions as to the mode or manner of doing it.

Q. 68. When did you first see a section like Exhibit No. 1?

A. Yesterday.

Q. 69. Who made the section?

A. There was three of us had a hand in making it?

Q. 70. Whose invention is it?

A. I do not know as it is anybody's.

Q. 71. When did you first see "Exhibit No. 4?"

A. I never have seen it until yesterday.

Q. 72. Whose invention is No. 4?

A. I don't know and don't know as it is an invention.

Q. 73. When did you first see Exhibit No. 5?

A. It was some two or three days ago that I first saw this particular exhibit, but I have seen this same kind eight or ten years —.

Q. 74. When did you first see Exhibit No. 6?

A. The same answer as the last.

Q. 75. When did you first see Exhibit No. 8?

A. As regards this particular exhibit two or three days ago, but as regards the same kind some six years ago.

Q. 76. Can you state the different manufactures of sections
109 like "4," "5," "6," "7," and "1," respectively?

A. "6" and "5" and "4" I have manufactured, and "6" and "5" I have known to be manufactured by A. I. Root—sales—James Heddon, and others, with the exception that "5" may have always had the guide groove; these sections "5" and "6" are the same that the parties manufactured I have named, except the same parties may have had the guide groove in all the sections of that kind; I make them both ways, as they are ordered, with or without the guide groove.

X Q. 77. Were these sections known to you at the — Forncrook began to work upon his sections?

A. They were.

X Q. 78. When did you first see Exhibit No. 10?

A. Some 2 or 3 days ago.

Q. 79. When did you first see sections like it?

A. I never saw any like it in all respects.

Q. 80. In your opinion, is the Forncrook section a useful and valuable improvement over No. 10?

Defendant's counsel objects as incompetent and irrelevant and not a proper question for cross-examination.

A. I would prefer it; so far as material and construction are concerned, it is.

X Q. 81. State, if you can, the different respects in which the Forncrook section is an improvement over No. 10?

Defendant's counsel objects same as to last question.

A. It is more easily put together than Exhibit No. 10.

X Q. 82. Is it better or stronger when put together?

A. I don't consider it is any stronger; it is better if made of good material.

X Q. 83. Is the method of joining the corners by dentated notches better than nailing, as in Exhibit No. 10?

A. It is more convenient, but not any stronger.

Q. 84. Can you testify about how many or how many of
110 sections like the Forncrook section you or your firm have manufactured and sold to the public?

A. I can't tell without looking through my books, and I can't even approximate the number.

X Q. 85. You have said that you manufactured in the neighborhood of 400,000 up to the time of the interference. State, as nearly as you can, how many you have manufactured and sold since the interference.

Defendant's counsel objects *as* to the question as irrelevant.

A. Four or five hundred thousand, I should judge. I can only give a rough guess.

Q. 86. Does either one of Exhibits 1, 4, 5, 6, 8, and 10 unite all features of the Forncrook section?

A. No, sir.

Q. 87. When you entered upon the manufacture of honey sections for sale to the public why didn't you manufacture sections of one of the kinds of the last-named exhibits?

Defendant's counsel objects to the question as incompetent, irrelevant, and immaterial and because the question is indefinite and uncertain.

A. Four, 5, and 6 we did manufacture and do manufacture still.

Q. 88. Did you manufacture 4, 5, and 6 at the same time you were manufacturing and selling the Forncrook section?

Defendant's counsel objects as irrelevant and immaterial.

A. Yes, sir.

Q. 89. What proportion of your whole manufactures of one-piece honey sections were Forncrook sections and what proportion were sections of another kind during the whole period since the Forncrook section was made?

111 Defendant's counsel objects on the ground that the question is irrelevant, incompetent, and immaterial.

A. I should say about one of Forncrook's to four of the others.

Q. 90. When did you first see Exhibit No. 8?

A. Some two or three days ago.

Q. 91. When did you first see a section like it?

A. Six years ago.

Q. 92. Where?

A. Milwaukee.

Q. 93. Where-bouts in Milwaukee?

A. On Grand Ave.

Q. 94. Who showed it to you?

A. I saw them with honey in them placed in front of a grocery store, and I stopped and examined them particularly to see how they were made.

Q. 95. Are such sections manufactured and sold to the public?

A. Can't say that they are now.

Q. 96. Were they then, six years ago?

A. I don't know. I have known of their having been manufactured since.

Q. 97. Who by?

A. We had price-lists and samples from different parties. I can only remember the name of one of the parties. I think it was Birch, of Michigan.

Q. 97*a*. Are they manufactured and sold now?

A. I don't know.

Q. 98. Do you know who made this particular exhibit?

A. No, sir.

Q. 99. Are you acquainted with one-piece honey sections manufactured by Root, the defendant in this cause?

A. I never have seen any that I knew were from him.

Q. 100. Do you know anybody who manufactures one-piece honey sections like Exhibit No. 12?

A. I have known A. I. Root, of Medina, Ohio, to advertise them.

112 Q. 101. How does Exhibit No. 12 differ from the Forncrook section?

A. It has square-cut cross-grooves instead of angular; it has no guide grooves, and has side insets for the entrance of bees only on what represents the bottom of the section; Forncrook's has what they call right and left hand dovetailing; the others not.

Q. 102. You say you know nothing directly about sales of one-piece sections by Mr. Root?

A. No, sir; I never bought any of him.

Q. 103. Are you still making one-piece sections in your establishment?

A. Yes, sir.

Q. 104. According to what pattern?

A. We are making them according to Ex. No. 7.

Q. 105. Any other?

A. I make another according to a pattern I now produce, marked Forncrook's Exhibit No. 1; these are the only ones.

Q. 106. How does Ex. No. 7 differ from the Forncrook sections?

A. It has no side entrance—insets for bee entrance—nor guide grooves.

Q. 107. How does Forncrook's Ex. 1 differ from the Forncrook section?

A. It has no side inset for bee entrance or guide grooves; it has two holes in the bottom for bee entrance.

—. 108. How large a proportion of your whole present manufacture of hive sections are one-piece sections?

Defendant's counsel objects, as the question is incompetent, irrelevant, and immaterial.

A. Probably four or five per cent.

— 109. What do you understand by the terms dependant cooperation as used in your direct examination?

A. That it depends on all the features of the section combined.

113 Redirect examination of Mr. LEWIS by counsel for defendant:

Q. 1. In your direct examination, in speaking of the conversations had with Mr. Forncrook in relation to the one-piece section, and as to the time when the same was made, sold, and advertised by your firm, you stated that these things occurred in the year 1877, and in your cross-examination you corrected the time given by stating that these things all occurred in 1878. Do you know about the time that Mr. Forncrook made application for a patent on the one-piece section?

Complainant's counsel objects that this is not a proper question for a redirect examination.

A. I think it was the 13th day of May, 1878; I will correct it by saying that I don't know when it was.

Q. 2. When was this one-piece section made and this advertising done and these sales of the one-piece section made by Lewis and Parks, with reference to the time of Forncrook's application for his patent?

A. I know that the sales were made previous to Forncrook's application.

Q. 3. Then if Forncrook's application was made in 1873 for a patent were the sales spoken of — you made in the year previous?

Question objected to as leading and as assuming facts not proved.

A. They were.

Q. 4. Did Lewis and Parks ever make any application for a patent on the one-piece section?

A. We did not.

114 Q. 5. You stated in your cross-examination that at the time you made an application for a patent on a machine for scoring sections that you then considered the one-piece section an improvement over sections theretofore known. Do you now consider that it has more utility than some other sections then in use?

A. I don't consider it has any more utility, but more convenient.

Q. 6. Are the functions performed by the inset when made part way accross different from what they are when made clear across?

A. The functions are the same.

Q. 7. In your cross-examination you state that, so far as the material and the construction is concerned, the Forncrook section is an improvement over A. I. Root's Ex. No. 10. Would the Forncrook section be an improvement of A. I. Root's Ex. No. 10 if the said ex. was made of the same material as the Forncrook section?

A. The Forncrook section is an improvement, so far as the dovetailing and nailing is concerned; otherwise I can see no difference if made of the same material.

Q. 8. In your interference case before the Patent Office did Lewis and Parks claim that Forncrook was not the original and first inventor of the one-piece section?

A. I think that was a part of our claim; part of it was; that it was old and well known.

Recross-ex. of Mr. LEWIS by comp't's counsel:

115 Q. 1. How many of these one-piece sections did you manufacture and sell before Mr. Forncrook's application for a patent?

A. I should think from seventy-five to a hundred thousand.

G. B. LEWIS.

116 STATE OF WISCONSIN, } ss:
Jefferson County, }

Personally appeared before me, George E. Giles, a commissioner agreed upon by the parties to the cause mentioned in the caption to the foregoing depositions, Elvin Armstrong, who resides at Jerseyville, Illinois, and George B. Lewis, who resides at Watertown, Wisconsin, and whose names are subscribed to their depositions above, respectively; said depositions were taken before me pursuant to the annexed stipulation, both parties to said cause appearing at said examination and waiving all objections to the time, manner, and place of taking said depositions; and I further certify that said witnesses are material and necessary for defendant named in the caption to said depositions; that I was attended at Watertown, Wis., by Wm. P. Wells, attorney for complainant, and J. A. Osborne, counsel for the defendant, and that the testimony of said witnesses were taken and reduced to writing by me, as above set forth, in the presence of said witnesses, and that said depositions were subscribed by said witnesses in my presence, and that they were first duly sworn to testify to the truth, the whole truth, and nothing but the truth, and that the taking of the testimony was adjourned from day to day as above set forth; and I further certify that I am not of counsel for or related to either of parties in said depositions and caption named, or in any manner or way interested in the event of said cause, and that I have retained the same in my possession for the purpose

of sealing them up and directing them, the said depositions, with the exhibits thereto attached, to the clerk of the circuit court of the United States for the northern district of Ohio.

In witness whereof I have hereunto subscribed my name this 20th day of Sept., A. D. 1883.

GEO. E. GILES,
Commissioner by Stipulation.

117 FORNCROOK'S EXHIBIT No. 2.

No. 243,674

THE UNITED STATES OF AMERICA.

To all whom these presents shall come:

Whereas James Forncrook, of Watertown, Wisconsin, has presented to the Commissioner of Patents a petition praying for the grant of letters patent for an alleged new and useful improvement in sectional honey frames, a description of which invention is contained in the specification, of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and whereas, upon due examination made, the said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefor-, these letters patent are to grant unto the said James Forncrook, — heirs or assigns, for the term of seventeen years from the 28th day of June, one thousand eight hundred and eighty-one, the exclusive right to make, use, and vend the said invention throughout the United States and the territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this twenty-eighth day of June, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States of America the one hundred and fifth.

[SEAL.] A. BELL,
Acting Secretary of the Interior.

Countersigned:
E. M. MARBLE,
Commissioner of Patents.

(Here follows diagram marked p. 118.)

119 UNITED STATES PATENT OFFICE.

JAMES FORNCROOK, of Watertown, Wisconsin.

Sectional Honey Frame.

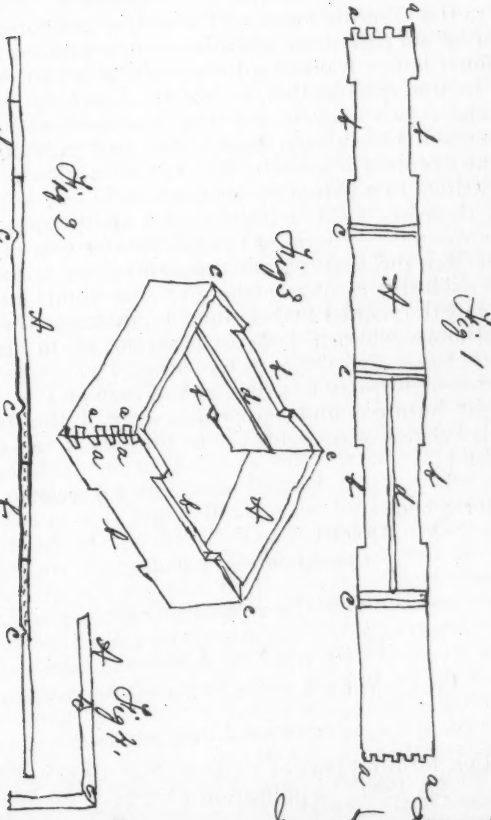
Specification forming part of Letters Patent No. 243,674, dated June 28, 1881. Application filed May 13, 1879.

To all whom it may concern:

Be it known that I, James Forncrook, of Watertown, in the county of Jefferson and State of Wisconsin, have invented certain new and

J. Farncomb, Sectional Horny Frame.
No. 243,674. Patented June 28, 1881.

No. 225
Farncomb
Rod
} p. 118



Witness: F. H. Schott
D. P. Lovell.

Inventor: James Farncomb
per J. C. Fasken & Co
Attys

useful improvements in sectional honey frames, and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and to letters of reference marked thereon, which form a part of this specification. This invention relates to an improvement in sectional honey frames, the object being to so construct them that they shall be stronger and in a more portable form than the frames now used for such purposes; and the invention consists essentially in forming the frame from a single blank or piece of material having all the necessary grooves and recesses required to form a complete frame cut in it, the ends of the blank being notched or dentated and angular grooves cut across it at those points which are to form the corners. These blanks after being thus prepared may be packed solidly in boxes or otherwise for transportation, and when required for use are bent into the square forms and their ends united at one of the corners by means of the interlocking notches or teeth, thus forming a complete frame ready for use. In the drawings Fig. 1 is a plan of one of the blanks, showing the various recesses and grooves with which it is supplied.
120 Fig. 2 is an edge view of the blank, and shows the form and depth of the angular grooves which form the corners of the frame. Fig 3 shows the blank bent into a square form with the ends united, making a complete frame ready for use. Fig. 4 shows a modification of the groove or miter *c*, Fig. 2.

The blanks for these frames are preferably formed from some light, tasteless, and comparatively tough wood, which will bend at the corners without steaming or boiling—such as bass wood or white wood, the material being produced by cutting it from the log in the form of a thick veneer or by sawing into thin stuff and then planing both surfaces. The blanks A are then cut from this material of the proper width and length, the ends dentated, as shown at *a a*, by means of a series of circular saws placed close together upon an arbor or other suitable tool, so that they will interlock when brought together. The recesses *b b* are then formed in its edges at such points in its length as will bring them at the top and bottom of the frames when set up in the hive. These recesses form openings which allow space for the passage of the bees between the frames and for the ventilation of this part of the hive. *These recesses form openings which allow space for the passage of the bees between the frames and for the ventilation of this part of the hive.* Three triangular grooves *c c c* are then cut across the blank at such points in its length as will divide it into four nearly equal parts, each of which forms one side of the frame after the blank is bent into a quadrangular shape. These triangular grooves are cut nearly through the blank, sufficient wood only being left to hold the parts firmly together. As the sides of the grooves *c* are inclined toward each other at a right angle, it follows that when the
121 blank is bent into the form of a frame these grooves make perfectly-fitting interjoints at three of its corners, the fourth corner being that at which the ends of the blank are united to each other

by means of the interlocking teeth formed thereon. In one of these spaces, between two of the grooves *c*, and preferably that which will form the top of the frame when placed in the hive, is formed a longitudinal groove, *d*, for the guide strip, which makes a secure point of attachment for the comb when the bees begin to build in the frames set side by side in the hive with the parts of the frame containing the recesses *b b* at top. These frames meet a want long felt by bee keepers, as those in common use are either dovetailed or nailed together at the corners, and, if set up at the manufactory, form a large bulk for transportation and are very liable to breakage in handling; but if sold to the user in pieces to be put together by him the numerous joints to be made cause loss of time and produce a very fragile article when finished, which loses its rectangular shape with the slightest rough usage, as the joints at the corners lack the necessary strength and rigidity to hold them in shape. My frame will be found to pos-ess none of the above-named defects, as it is intended for transportation in solid packages before being set up, and when set up possesses great strength and rigidity, preserving its form without difficulty during all the rough handling to which such frames are frequently subjected. Having thus described my invention, I claim as new, and desire to secure by letters patent, the following: As a new article of manufacture, a blank for honey frames
formed of a single piece of wood, having transverse angular
122 grooves *c*, longitud-nal groove *d*, and recesses *b*, all arranged
in the manner shown and described.

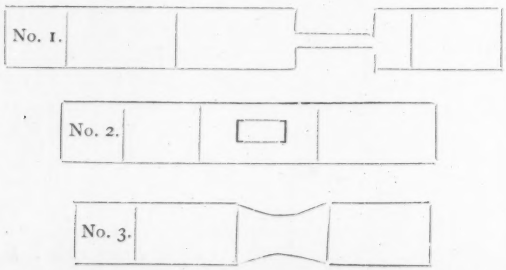
In testimony that I claim the foregoing I have hereunto set my hand and seal this 6th day of May, 1879.

JAMES FORNCROOK. [L. S.]

Witnesses:
J. H. BOLLES,
M. WILLIS P. KEYES.

123 FORNCROOK'S EXHIBIT No. 6.

Something more about one-piece sections. How long have they been practically in use?



One-piece sections. Made in 1873, 1876, *and* 1877.

J. A. OSBORNE: As you request me to give particulars regarding section honey boxes made of one piece of wood, I will say that I gave

a description in Gleanings for April, 1876, of a box that I then made. I know that it was the first that I ever heard of made of one piece of wood. I inclose you 3 patterns of boxes that I made of one piece. You will find them No. 1, 2, and 3. No. 1 I had used for three years before 1876; No. 2 I had used for one year before 1876; No. 3 I made in 1877. Nos. 1 and 2 are made of strawberry-case covers, ripped into narrow strips and sawed at the corners half through, as described in Gleanings—much the same, or so near that it would take a smart man to tell the difference between the ones now made and patented by Jas. Forncrook and others, for when my little girl saw in the bee magazine the one-piece section she said, "Oh, pa! they are making your frames for honey now." The No. 3 is made of strawberry boxes, of one piece also, but much thinner stuff, which I now almost entirely make, as they please much better.

I do not know of any one in this place using the same one-piece section but the Rev. Mrs. Colton. I made some 100 for her some years ago, and she made the rest herself after that, but she is now in Florida. If I can find any more soon I will let you know.

ALEXIS FIDDES.

Centralia, Ill., May 11, 1883.

FRIEND FIDDES: We bee keepers surely owe you vote of
124 thanks for your invention. I presume your letter, which was given in our journal, was what turned the attention of so many to this subject, and as it appeared so long ago in public print no one can very well say the matter was not fully understood by bee keepers generally, and for one I feel like saying "Many thanks." We have also, in addition to the above, the following from friend McGonnell:

FRIEND ROOT: I have not heard from my brother. He is in the oil regions somewhere and hard to reach; but the latter part of the year after I sent him the plank his shop burned down, and the coming winter he lost all of his bees, so it is doubtful if he ever made any of the one-piece sections. From what I can understand from your letter Forncrook claims cutting the entrance in the plank before ripping up. Now, if that is the case, I think we had something of some value. I made sections in the spring of 1875, and I always cut the entrances in the plank before ripping up. I followed that plan up to the spring of 1879. I have the bits that I cut the grooves with yet, and I think I can furnish some pieces of the sections that I cut eight years ago. I have some that I cut 6 years ago, which I will send you. The pieces that I send you were on a hive that I had at the Pennsylvania State agricultural fair at Erie, in 1877. You ask me how much you would have to pay me besides my expenses to come and make deposition to what I know about the case, to which I shall say, nothing besides expenses, which would include railroad fare and board while there. I would not ask that if I could afford it. If what I know is of any value to you let me know and I will do all I can for you.

J. McGONNELL.

Waterford, Pa., Aug. 13, 1883.

125 A. I. ROOT'S EXHIBIT No. 13.

Section Frames and Honey Boxes.

FRIEND ROOT: I see by Gleanings for March that J. I. Johnson, Palmyra, N. Y., asks a preventive of bees running the combs together in section boxes. I will tell you what I did last summer and it worked to a charm. I had 8 stands of bees in double hives, my own make, Quimby suspended frame, 20 frames in hive. I made 100 lbs. box, 150 in sections, and 50 extracted honey. I live on a public road, and people constantly passing wanted a few pounds of honey; of course they had nothing to hold it. Well, I thought about a section-box; I could get nothing to make them of easily, so I got some peach-box covers and some strawberry-box stuff, and ripped them up in one-inch strips (I suppose you know how a strawberry box is, cut half thro' at each corner and nailed at one side, but the veneer must be wet over night before bending; it then works nicely). I then put a piece of comb in the top, 1 inch square (would prefer drone comb if white); in some I stuck little bits of wax along the under side of the top. When filled they weighed from one to two pounds each. Only two sections out of the 150 lbs. were connected. I sold all my honey at the house for cash—comb honey, 25 cents; extracted, 20 cts. I had more demand for the little sections than any other. I put the sections in the frames both front and back of the hive. I think the comb foundations for the sections a grand hit. One hive made 90 lbs. comb honey. Besides the 300 lbs. honey I had 6 swarms from the 8 hives, making 24 all in good order, to start with this spring.

ALEX. FIDDES.

P. S.—I may say that I put sections on top, but frost came about the middle of Sept. and there was no more honey.

Centralia, Ill., March 8th, 1876.

126 A. I. ROOT'S EXHIBITS No. 14.

G. B. Lewis. Charles E. Parks.

Lewis and Parks, manufacturers of bee-hives, honey boxes, section boxes, section frames, etc., etc.

WATERTOWN, WIS., 1879.

To the bee keepers of the United States:

We desire to say to the bee keepers of the United States that we are making a special business of manufacturing the standard Langstroth bee-hive, dovetailed sections, section honey boxes, &c.

We have shipped these hives during the past season to all sections from Maine to Colorado, from Minnesota to Texas, and they have given universal satisfaction.

Owing to our nearness to the lumber district, to our excellent water power, and to our machinery, especially adapted to this particular business, we are able to manufacture at prices that defy competition.

We buy our lumber in large lots, especially adapted to this particular business, having on hand at the present time one-half million feet.

We use what is called best dimension, and best common judgment being used in cutting out so as to not have any loose knots or defective places in the material, cutting it with a view of putting the best lumber and best face of the lumber where most needed. In this way we are able to get a good hive at a very low figure.

The material is cut and prepared entirely by machinery, so that any portion of a hive can be ordered at any time, and will be sure to fit.

Our material for honey boxes, sections, &c., is prepared from first clear pine or white bass wood.

127 Sections are dovetailed and sandpapered on one side, making a very smooth and beautiful section.

Over 200,000 of these sections sold during past season.

We make what is called the one-story eight-and-ten frame and two-story eight-and-ten frame hive.

We make a special business of these sizes of Langstroth hives, but will, however, give estimates on any other kind of hive, but must in all cases have a complete sample hive sent us, free of charge, from which to make our estimates.

A written description will not answer our purpose, and we cannot give estimates on any less number than fifty hives of any kind different from the standard Langstroth. Nine-tenths of the hives that we make are for tight bottoms, as they are generally preferred; can, however, furnish loose bottoms if desired at the same price.

As there are a great many sizes called the standard Langstroth hive, we would say that we got our size of the late Adam Grimm, of Jefferson, Wis., and is as follows: 12 x 18 x 10⅛, inside measure, for an eight frame hive; for a ten frame 14½ x 18 x 10⅛; brood frames are 9 x 17⅜, outside measure.

The lumber which we use is dressed on both sides, ⅞ inch thick, and sawed with fine saws, thus needing but little smoothing with plane, and makes a good, perfect hive, in fact, without any trimming, but of course looks better if trimmed up a little with plane.

We advise parties who have never seen our hives to order one hive first, all made complete, as a pattern to nail the others by, and by it you can see what material we use, &c., but you can judge from our made-up hive what the freight will be on hives in the flat, as rates on single hives made up are very high.

128 Freight on hives not mailed (in flat) is second-class on all roads.

Hives all made up and complete are first-class on the C. N. W. R. R. and C. M. & St. P. Most other roads charge twice first-class.

We can tell our patrons what the freight will be to any point on the C. & N. W. R. R. and C. M. & St. P., but not to other points, except on car-load lots. On car-load lots we get special rates right through.

The hives weigh from 40 to 50 lbs., according to kind ordered.

Freight to Chicago, 30 cents per 100 lbs. on hives made up, and 25 cents on hives in the flat. Your local agent can tell you what it is from Chicago to your several places.

Do not order hives sent by express without first learning what the charges will be, as they are generally so high that it will make the hives cost too much.

We do not send single sample hive in flat, as it costs more to pack it for shipment than to mail it.

All sample hives ordered will be sent made up complete.

Parties ordering should by all means have a sample hive to mail after.

Parties often enquire if the bottom of hive and top of cap are each in one piece. They are not. Lumber wide enough for that purpose is very expensive and not so good. We make them of two pieces tongued and grooved together. In that way they will not check and are not so liable to warp. The bottom of the hive should in no case run, for the reason that if the bottom gets wet and swells it will burst the hive apart.

Lumber does not shrink or swell lengthwise, consequently does not damage the hive if put on crosswise, as we place ours.

129 We want to encourage our patrons to club together, where it is possible, and order a car-load, as they will make a great saving in cost of freight.

We can get about 250 complete made-up hives in a car, and a large quantity of extras in the shape of honey boxes, dovetailed sections, section frames, &c.

In the flat (not nailed) we can get the material for 500 hives in a car. By clubbing together in this way you get the advantage of low freight, as well as our discount.

It will take but little effort in most localities to get enough orders for a car-load.

A number of places last season received enough in small orders to make a car-load, and by clubbing together they could have got their stuff at much less in freight and discount, making their hives much cheaper.

We desire to call particular attention to writing and ordering goods. Write plainly your name, post office, county, & State. Write plainly the railroad depot to which your goods are to be shipped, and also say what county and State the depot is in. If you have any choice of railroads say what ones we shall ship over. We often get letters written at one place and mailed at another, and find that neither place has any railroad, and yet parties are so careless as to not advise us where to ship. A close observance of these suggestions will save us much trouble and annoyance, and insure greater dispatch and more accuracy to our customers.

We respectfully urge our patrons to order as early as possible. Do not wait until your bees are swarming before you order, as many did last season. We are constantly manufacturing and generally have a good many stored, but when the rush comes it usually exhausts our store, and many are disappointed.

130 Last season we were entirely unable to meet the demand during the spring, and many were not supplied.

We have, however, increased our capacity for manufacturing and storing and are better prepared than ever to meet the demand. There will be a brood-frame support furnished with each hive to place in the bottom. They are not fastened, so if you do not want them you can easily remove them; for them we make no extra charge.

The end pieces to hive, for support of brood frames, are notched. If parties do not desire them notched they can easily cut the notches away and it does not make them too narrow. One-half of the number of end pieces are a little over ¼ of an inch narrower than the others; they are for the front ends, and are to be raised from the bottom, thus making the bee entrance.

The entrance blocks are to be laid on the outside, governing the size of the entrance. One of our customers last year, not understanding the use of the entrance blocks, nailed them on for handles.

When shipping in the flat we do not sort the brood-frame stuff, but put in enough to make it hold out.

Price-List.

Standard Langstroth movable frame bee-hives, honey boxes, section boxes, section frames, etc., etc.

* * * * * *

Lewis' sections and honey boxes. Something new; our own invention.

These sections are made from a single piece of lumber and make a more solid and firmer section than if either nailed or dovetailed.

131 They can be put together much more rapidly and make a more finished-looking section than any other kind. We make, also, all kinds of honey boxes in the same way, only 2 pieces in a box, without nails or glue and without tinning in the glass.

Owing to the peculiar construction of these sections postage is high. We will mail 2 sample sections to any address upon receipt of 15 cents, and 1 honey box for twenty-five cents.

Freight is no higher than on common sections and boxes. Lewis' sections, $7.50 to $10 per 1,000; Lewis' honey boxes, $1 per 100 added to prices on page eight.

The price of our one-story hive (see page 7) should be understood to include a 7-inch cap for surplus honey. Parties desiring material for plain prize sections, one side sandpapered, can have them @ $4.50 to $5.50 per one thousand sections.

We use seasoned lumber in everything we make. Parties desiring further information than this circular gives will please inclose a three-cent stamp for reply.

132 *Certificate.*

UNITED STATES OF AMERICA, }
Northern District of Ohio, } *ss:*

I, Augustus J. Ricks, clerk of the circuit court of the United States for said district, do hereby certify the above and foregoing to be a true, correct, and complete transcript of the record of all the proceedings had in said court in the cause wherein James Forncrook is the complainant and Amos I. Root is defendant, as the same appears from the files and records of said court now remaining in my custody.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at my office in Cleveland, in said district, this first day of May, A. D. 1885, and in the one hundred and ninth year of the Independence of the United States of America.

[Seal of the Circuit Court, North'n Dist. of Ohio.]

AUGUSTUS J. RICKS, *Clerk.*

Endorsed on cover: N. Ohio C. C. U. S. No. 225. James Forncrook, appellant, *vs.* Amos I. Root. Filed May 4, 1885.

127-176

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1887.

No. 225.

JAMES FORNCROOK *vs.* AMOS I. ROOT.

It is hereby stipulated between the solicitors for the appellant and appellee that patent No. 157,473, granted to Hutchins, December 8th, 1874, was a part of the record of the defendant in the court below, and that by mistake it failed to be certified up by the clerk of said court.

It is therefore agreed between the solicitors that the same may become a part of the record in the Supreme Court, and be used at the hearing with the same effect as if it had been certified up with the balance of the record.

Dated Oct. 5, '87.

WM. P. WELLS,
Solicitor for Appellant.
M. D. LEGGETT,
Solicitor for Appellee.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted Louise Hutchins, December 8, 1874, number 157,473, for improvement in the manufacture of boxes.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be affixed this 31st day of August, in the year of our Lord one thousand eight hundred and eighty-three, and of the Independence of the United States the one hundred and eighth.

[Seal Patent Office United States of America.]

E. M. MARBLE,
Commissioner.

No. 157,473.

The United States of America to all to whom these presents shall come:

Whereas H. Wesley Hutchins, of Livermore Falls, Maine, has presented to the Commissioner of Patents a petition praying for the grant of letters patent for an alleged new and useful improvement in the manufacture of boxes (he having assigned his right, title, and

interest in said improvement to Louise Hutchins, of East Livermore, Maine), a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas upon due examination made the said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said Louise Hutchins, her heirs or assigns for the term of seventeen years from the eighth day of December, one thousand eight hundred and seventy-four, the exclusive right to make, use, and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this eighth day of December, in the year of our Lord one thousand eight hundred and seventy-four, and of the Independence of the United States of America the ninety-ninth.

[Seal Patent Office United States of America.]

B. R. COWEN,
Acting Secretary of the Interior.

Countersigned:
J. M. THATCHER,
Commissioner of Patents.

(Here follows diagrams, folios 4, 5, 6.)

UNITED STATES PATENT OFFICE.

H. WESLEY HUTCHINS, of Livermore Falls, assignor to Louise Hutchins, of East Livermore, Maine.

Improvement in the Manufacture of Boxes.

Specification forming part of Letters Patent No. 157,473, dated December 8, 1874; application filed September 24, 1873.

To all whom it may concern:

Be it known that I, H. Wesley Hutchins, of Livermore Falls, in the county of Androscoggin and State of Maine, have invented an improvement in the manufacture of boxes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being made to the accompanying drawings forming part of this specification, in which—

Figure 1 is a front view of a piece of scale-board which forms the sides of my improved box. Fig. 2 is an edge view, in section, of the piece which forms either the top or bottom of the box. Fig. 3 is a side elevation of my improved machine for making the scale-board shown in Fig. 1. Fig. 4 is a top-plan view of the same. Fig. 5 is a sectional end view of the shaft carrying the wheels provided with cutters. Figs. 6 and 7 are views of the notching-cutters. Fig. 8 is a detailed view of the scaling-knife, the feed-roll, &c.

Same letters show like parts.

3 Sheets--Sheet 1.

H. W. HUTCHINS.

Manufacture of Boxes.

No. 157,473. Patented Dec. 8, 1874.

No. 225.
Page 4.

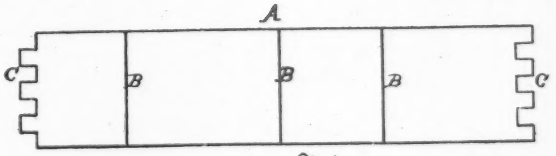
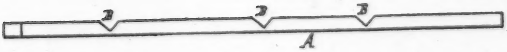


Fig. 1.

Fig. 2.



Witnesses:
Frank H. Jordan
Edwin W. Hackett

Inventor:
H. Wesley Hutchins
per Atty.
Wm. Henry G. Gifford

The object of my invention is to produce a method and machine for the manufacture of thin wood strips or scale-board, to be used in the making of boxes for a variety of purposes.

My invention consists in such an arrangement of machinery as that a log of wood can be cut into thin strips, tongued and grooved along the edges of the strip, and scored at the proper points, at one and the same operation of the machine. The tonguing and grooving of the edges of the strip is in order that, when the strip is folded or bent in the shape to form the sides of a box, the tongues and grooves will match each other, and so render their union stronger. The scoring of the strip of scale-board is to render it easy to bend the strip at such points as will form three of the angles of the sides of the box.

A piece or strip of board thus made is illustrated at Fig. 1, A B showing the channels, and C C the tongues and grooves. *a* shows the fixed knife by which the scale-board is cut from the log. It is securely set in a strong frame, *b*, and it moves upon tracks *c*, having shoes *d* to fit the same. The manner and purpose of this movement will be hereinafter described. *e* and *f* show two short shafts. These project through the sides of the frame *b*. The shaft *e* is provided with screw-threads, which work in corresponding screw-threads in the frame. Thus they can be brought nearer to or removed farther from each other within the frame *b*, as desired. Between the ends of these two shafts is placed the log to be operated upon. When so placed, the shaft *e* is turned inward by its crank until it is held firmly griped between the inner ends of the two shafts *e* and *f*. The head of the shaft *f* carries a projecting point, *h*, in order to secure the proper rotation of the log with the shaft. A set-screw, *i*, holds the shaft *e* from being screwed outwardly, and so loosening the log between the ends of the two shafts. *j* shows a carriage, having tracks *k*, with shoes similar to those shown by *d* and *c*, before described. This carriage has a shaft, *l*, set in proper bearings on the carriage and having rigidly attached to it two rotary disks, *m m'*. These disks carry projections *n*. These two disks are adjustable upon the shaft *l* horizontally, according to the distance apart at which it is desired to place them. Attached to this carriage, also, are the scoring-knives or channel-cutters *o*. These two carriages *j* and *d* move upon their tracks from or toward each other within the frame *b*. Extending from the one to the other of these carriages is the rod *p*, having cut upon its exterior a right and left screw.

It is evident that when rotated in one direction this screw, fitting corresponding female screws in the carriages, will cause the carriages to approach each other, and the reverse when operated in another direction.

Rotation is given to the screw by means of a beveled gear, *q*, which, being rigidly attached to it, meshes with another beveled gear, *r*, rigidly set on the shaft *s*. Thus, it will be seen, when the shaft *s* is made to rotate the shaft *p* revolves also, causing the carriages *j* and *d* to move in conformity to the direction in which shaft *p* revolves.

The operation is as follows: Place the block of wood between the

ends of the shafts *f* and *e*, as described, and tighten it therein, as specified. When the operation begins the diameter of the block or log will just fill the space between the cutter *a* and the devices *n* and *o* upon the carriage *j*. The block is rotated toward the scale-board cutter *a*. Thus, after a partial revolution, the block is tongued and grooved, as well as scored or channeled, before the scale is cut from the log. In other words, the tonguing and grooving and scoring devices have the solid uncut wood of the log to operate upon. As the scale-board is cut from the log and the log diminished in diameter, the carriages *d* and *j* are constantly drawn toward each other by the rotation of the right-and-left screw-shaft *p*, so that the different devices for making the tongued and grooved and scored board are all at the time kept in proper contact with the lumber. Thus the operation is continued until the block is used up. A guide-roll, *t*, throws the scale-board out between it and the cutter *a*, and also operates as a feed-roll. At each end of the cutter *a* is set a small knife, *u*, which projects slightly into the ends of the log in advance of the cutter *a* and starts the board, and also imparts a bevel or finish to the edges.

The devices to perform the tonguing and grooving are shown, on an enlarged scale, in Figs. 6 and 7. They consist of three sides so shaped as to cut a rectangular recess, and with one open side, out of which the small piece of wood cut from the log may fall.

Fig. 5 shows a section of the shaft *l* with a feather which fits a slot in the disks *m* and *m'*, and by which they are caused to rotate with the shaft.

I desire to specify that the cutters, such as shown in Figs. 6 and 7, can be so shaped as to cut in the wood match points, and also have one of the projecting sides so extended as to slip the card, in order to form the complete match in the card, the cards themselves to be cut to the proper widths as the board leaves the machine.

When the board is cut for the manufacture of boxes, it is evident that, as it leaves the machine, it can be severed into the proper widths for the size of the box desired to be made from it. The different widths then require only to be bent at the points where the scoring is made, the tongues and grooves wet with glue, and matched, in order to be formed into the entire sides of the box.

It should be said that the channels made by the scorers *o* extend only partially through the thickness of the scale-board. These sides thus formed are then placed around a shouldered or rabbeted bottom or top piece of a box properly fastened thereto, and the box is completed.

A view of these bottom and top pieces is shown in Fig. 2.

What I claim as my invention, and desire to secure by letters patent, is—

1. The cutters *n* upon the rotary disks *m m'*, in connection with the stationary scoring devices *o*, to operate as herein described.

2. In combination with the cutters *n* and scorers *o*, the scale-board cutter *a*, operating as described.

3. The carriages *d* and *j*, moving upon tracks *c k*, and operated

simultaneously by the screw-shaft *p*, in combination with the cutters *n*, scorers *o*, and scale-board knife *a*, as herein described.

4. The method of manufacturing wooden boxes by tonguing, grooving, and scoring the wood to form the sides thereof before the same is separated from the log, and then cutting the said sides from a rotating log of wood, then bending the same into proper form, uniting the ends of the sides, and fitting the sides thus formed around a rabbeted bottom piece, as herein described.

H. WESLEY HUTCHINS.

Witnesses:

J. W. EATON.
JOHN C. EATON.

UNITED STATES OF AMERICA,

Northern District of Ohio, Eastern Division:

I, Augustus J. Ricks, clerk of the circuit court of the United States for the northern district of Ohio, do hereby certify that the letters patent and specifications No. 157,473, granted to Louise Hutchins, December 8th, 1874, for improvement in the manufacture of boxes, hereto attached, was read as part of the evidence on the trial of the case wherein James Forncrook is complainant and Amos I. Root is defendant, but was not formally filed so as to become part of the record, but by the stipulation of counsel herewith transmitted becomes a part of the record now in my custody and control and should be incorporated in the transcript of record in said case heretofore certified by me.

In witness whereof I have hereunto affixed my official signature and seal, at my office, in Cleveland, in said district, on the 8th day of October, A. D. 1887, and in the 112th year of the Independence of the United States.

[Seal of the Circuit Court of the United States, Northern Dist. of Ohio.]

AUGUSTUS J. RICKS, *Clerk.*

[Endorsed:] Supreme Court U. S. 1887, October term. No. 225. James Forncrook, app't, *vs.* Amos I. Root. Stipulation of counsel & addition to record.

[Stamped:] Office Supreme Court U. S. Filed Oct. 11, 1887. James H. McKenney, clerk.

127-176

Supreme Court of the United States.

OCTOBER TERM, 1887.

NO. 225.

JAMES FORNCROOK, Appellant,

vs.

AMOS I. ROOT, Appellee.

APPEAL FROM THE CIRCUIT COURT FOR THE NORTHERN DISTRICT OF OHIO.

BRIEF FOR APPELLANT.

WILLIAM P. WELLS,

Of Counsel for Appellant.

Supreme Court of the United States.

OCTOBER TERM, 1887.

No. 225.

JAMES FORNCROOK, APPELLANT,

vs.

AMOS I. ROOT, APPELLEE.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF OHIO.

BRIEF FOR APPELLANT.

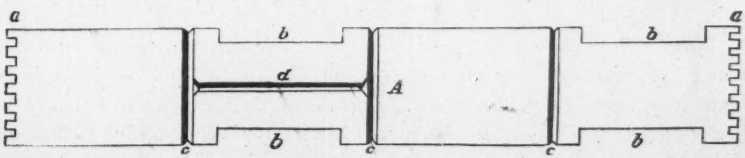
STATEMENT OF CASE.

This is the usual bill in Equity for the infringement of a patent for an improvement in Sectional Honey-Frames, granted to appellant June 28th, 1881, on an application filed May 13th, 1879, and for an account.

The patent, No. 243,674, is found in the record, pp. 78, 79, 80. (Forncrook's Exhibit, No. 2).

The specifications of the patent describe "an improvement in sectional honey frames. The object being so to construct them that they shall be stronger and in a more portable form than the frames now used for such purposes; and the invention consists, essentially, *in forming the frame from a single blank or piece of material*, having all the necessary grooves and recesses required *to form a complete frame*, cut in it, the ends of the blank being notched and dentated and angular grooves cut across it at those points which are to form the corners.

The drawing of one of the blanks (figure 1 in patent), is thus:



This description of the invention, as a *frame* formed from a *blank*, is carried through the specifications. Thus "the *blanks* for these *frames* are preferably formed from some light tasteless wood," etc. "The *blanks* A are cut from this material," etc. "When the *blank* is bent into the form of a *frame*," etc. "These frames meet a want long felt by beekeepers, as those in common use are either dovetailed or nailed together at the corners, and if set up at the manufactory form a large bulk for transportation and are very liable to breakage in handling; but if sold to the user in pieces to be put together by him, the numerous joints to be made cause loss of time and produce a very fragile article when finished, which loses its rectangular shape with the slightest rough usage, as the joints at the corners lack the necessary strength and rigidity to hold them in shape."

"My *frame* will be found to possess none of the above named defects," etc,

The claim is as follows: "As a new article of manufacture a blank for honey-frames formed of a single piece of wood having transverse angular grooves c, longitudinal grooves d, and recesses b, all arranged in the manner shown and described."

The answer (Record, p. 5) alleges the following defences:

I. Denial of value, utility and novelty. (Paragraph 2.)

II. Description in prior printed publications. (Paragraphs 3, 4, 5, 6.)

III. Description in letters patent, issued to Louise Hutchins, as assignee of H. Wesley Hutchins, December 8, 1874, No. 157,473. (Paragraph 7.)

IV. Denial of invention by appellant, and prior knowledge by various persons. (Paragraph 8.)

V. Public use by various persons, more than two years before application by appellant for a patent. (Paragraph 9.)

VI. Abandonment and dedication to public use. (Paragraph 10.)

VII. Denial of infringement. (Paragraph 11.)

Upon the hearing in the Circuit Court the bill was dismissed. The opinion of the Court (Record, pp. 11, 12, 13, 14) places the decision on the ground of want of novelty; holds that appellant's invention was anticipated (1) by a device of Alexander Fiddes, one of the per-

sons named in the answer, and (2) by the Hutchins' patent, set up in the answer.

As the decree dismissed the bill generally, presumptively all the defences alleged in the answer were sustained, and it is open to defendant to insist upon any or all of them, although several of them were not urged at the hearing below, and the principal contention of defendant here will, probably, be upon the ground of want of novelty, upon which the decision was made in the Circuit Court.

ASSIGNMENT OF ERRORS.

The appellant assigns error as follows:

The decree was erroneous in deciding—

1st. That the invention claimed by appellant was without value, utility or novelty.

2d. That the alleged invention patented by appellant had been previously described in the printed publications alleged in paragraphs 3, 4, 5 and 6 of the defendant's answer.

3d. That the invention patented by appellant had been described and set forth in the patent granted to Louise Hutchins, No. 157,453, alleged in paragraph 7 of defendant's answer.

4th. That appellant was not the original and first inventor of the improvement patented to him, and that the same invention was known prior to the alleged discovery by appellant, to the persons named in paragraph 8 of defendant's answer.

5th. That the said invention patented to appellant was in public use, at the places, and by the persons named in paragraph 9 of defendant's answer, more than two years before appellant's application for a patent.

6th. That prior to the date of appellant's application for a patent, his said invention was abandoned to the public, and was in public use, with his consent and allowance, in the manufacturing establishment of Lewis & Parks, in Watertown, in the state of Wisconsin.

7th. That defendant has not infringed the alleged patented invention of appellant.

We will consider the defences relied on, in their order.

Preliminary to this, however, we submit that by a fair as well as literal construction of the specifications and claim, the invention claimed is *the construction of a blank completely adapted to form a honey-section ready for immediate use by simply bending it into shape and joining its ends.* The invention does not broadly provide a honey-section with the separate features described, but it is of a blank adapted to be bent as described: it is in the blank as described, as a whole, with respect to the features of its being bent to form, and having the indentations and other features, and not in any one of those features as mechanical features of construction. The invention is in the completed article, including the general dimensions, outline of the blank, location and arrangement of the transverse grooves, adapted to the particular use for which the blank is intended.

I.

UTILITY AND VALUE.

The evidence, taken together, shows various devices for the purpose of enclosing honey to place it upon the market, consisting, when in use, of a four-sided wooden structure. Of those, some were made of four pieces of wood, nailed together, or united in some other way, at the corners; some of them of strawberry-box material, or veneering, bent so as to form a four-sided structure; some of the latter having a single thickness of the material on three sides, and double thickness on the fourth side; some of two pieces, joined at two corners when bent for use; some of one piece, cut by hand, with a cut for corners outside, and when bent to place as a four-sided section, to be nailed at one corner; some frames of three sides formed from one piece of wood, cut at the corners,—the fourth side being of another piece, extending beyond the other sides,—the latter being really a frame, and hung in the hive.

All these devices are described in the testimony of *Thomas G. Newman*, a thoroughly experienced and competent witness. (Record, pp. 32 to 37.)

His testimony shows that none of these obtained any considerable sale in the market, some of them not known, except by the persons making them as experiments, and that the Forncrook sections were

useful and practical, and that their value was demonstrated by driving most other sections which were previously in use, out of the trade. (Record, p. 33, fol. 55.)

None of the other sections were known in the trade; the superiority of the Forncrook section at once caused it to supersede all others, and to attain to sales in the proportion of ten to one of all other sales combined; the sales steadily increased every year from their introduction. (Record, pp. 35–6, fol. 58, 59.)

Defendant's witness, *Geo. B. Lewis*, who claims to be the real inventor of the Forncrook section, and whose testimony, in other respects, seeks to break down Forncrook's claim to the invention, testifies that it was an improvement upon all sections in use at the time, and to very large sales of it. (Record, p. 70, fol. 104, 105.)

The testimony of *Melville E. Dayton*, an expert witness, as to the utility of the Forncrook section is as follows (Record, p. 24, fol. 40): "The utility of this device is obvious from a description of its construction and proposed use. These honey-sections are used in large quantities and should be of symmetrical form, clean and neat, and withal cheap. The construction described is one by which perfect uniformity in shape and size is secured, and by which, also, are secured the other requisites just mentioned. They require no special skill on the part of the person who ultimately puts them to use to secure the results of uniformity and accuracy in shape and size just mentioned, these all being provided for, as stated, in the original construction of the strip. They are also in the strip form obviously in shape to be packed as closely almost as the original lumber from which they are cut, and to, therefore, form relatively small packages as compared with the dimension and weight of packages that would be found if the boxes or frames were to be shipped after completion."

The affirmative evidence of the value and utility of the Forncrook section is, therefore, ample, and is strengthened by the position taken by defendant in another part of the case. His manufacture is of the Forncrook section, with the omission of a single feature, which, as he alleges, averts the charge of infringement. And whether it is determined that he infringes or not, his denial of the value and utility of the Forncrook section cannot be sustained.

II.

DESCRIPTION IN PRINTED PUBLICATIONS.

This defence is alleged in paragraphs 3, 4, 5 and 6 of the answer (Record, pp. 6 and 7), and avers descriptions in printed publications, as follows:

(1.) In "Manual of the Apiary," by Prof. A. J. Cook, published at Chicago, Illinois, by Thomas G. Newman & Son, in the month of May, 1878, on pages 144 and 145 of said publication.

This book is not in evidence. It was partially, but not completely, identified by the witness Lewis (Record, p. 66), but not put in evidence as an exhibit, and is not in the record.

(2.) In "Gleanings in Bee Culture," published by A. I. Root, at Medina, Ohio, in April, 1876, at page 76 of said publication.

This is proved (Lewis, Record, p. 66), and is put in evidence; "A. I. Root's Exhibit No. 13." (Record, p. 82.)

(3.) In "The American Bee Journal," published by Thomas G. Newman & Son, at Chicago, for October, 1877, on page 349 of said publication.

This is not proved, and is not in the record.

(4.) In "Gleanings in Bee Culture," published by A. I. Root, at Medina, Ohio, in February, 1879, on pages 72 and 73 of said publication.

This is not proved, and is not in the record.

So that, as respects prior printed descriptions, this defence rests on the publication in "Gleanings in Bee Culture," in April, 1876. (Record, p. 82.)

This is a letter of Alex. Fiddes to the editor, Root, describing his devices for honey-sections.

It is settled that novelty is not negatived by any printed publication unless the information contained therein is full enough and precise enough to enable any person skilled in the art to which it relates

to make the thing covered by the patent sought to be anticipated. It follows that a prior description is not anticipation, if it will not enable a person skilled in the art or science to which it appertains to make, construct and practise the invention to the same practical extent as he would be enabled to do if the information was derived from a former patent.

"Mere vague and general representations will not support such a defense, as the knowledge supposed to be derived from the publication must be sufficient to enable those skilled in the art or science to understand the nature and operation, and to carry it into practical use. * * The account published, to be of any effect to support such a defense, must be *an account of a complete and operative invention capable of being put* into practical operation."

Seymour v. Osborne, 11 Wall. 516.
Downton v. Yeager Milling Co., 108 U. S. 466.

Testing the description relied on, by this rule, it is plainly insufficient to support this defence.

It is a description of "peach-box covers and some strawberry-box stuff," "ripped up in one-inch strips," with the remark, in parenthesis, ("I suppose you know how a strawberry-box is cut half thro' at each corner and nailed at one side, but the veneer must be wet over night before binding; it then works nicely.") "I then put a piece of comb in the top 1 inch square (would prefer drone comb if white); in some I stick little bits of wax along the under side of the top." This is all.

This description is to be considered entirely independently of the devices made by the same witness in 1872 and 1873, relied on as anticipations. The printed letter does not purport to describe these.

Is this vague account of a rude device in conformity with the rule? Would it enable a mechanic or any skilled person to construct, for practical operation, the complete structure patented by Forncrook?

The mere comparison of the two is fatal to this defence.

III.

DENIAL OF INVENTION.

This embraces two points; (1). Denial that there is any invention in the structure: (2). Denial that complainant was first inventor.

(1). *Want of Invention.* The decided cases, in respect to what constitutes invention, do not afford a statement of any brief, exact, affirmative rule by which to determine the presence or absence of invention in any particular case.

It is a question of fact in every case.

Pappenhausen v. Falke, 5 Blatchf., 49.

The rules deduced from the decided cases are mostly negative rules, which declare what is not invention.

But it may be affirmatively stated that it must be the discovery of something material or new which is an improvement in the art or trade; a new contrivance for the purpose designed, accomplishing a beneficial result in a better way; a contrivance which, besides being new, is of superior practical utility over prior appliances for the same purpose.

Want of invention cannot be predicated of a device or process which first reached the particular result, on the ground that the simplicity of the means is so marked that many believe they could readily have produced it if required.

See especially Loom Co. v. Higgins, 105 U. S., 591.

And sufficiency of invention does not depend upon an inquiry as to the amount of thought, skill, ingenuity, or labor which may have been bestowed upon the production. Whether the invention was the result of long experiment and profound search, or of a merely accidental discovery, or of the occasional reflection or study of an artisan, is not the essential ground of consideration in determining the patentable character of any subject.

Earle v. Sawyer, 4 Mason, 6.

Mr. Justice Nelson declared that, after all, the question of sufficiency of invention was nothing more than determining whether the alleged patentable subject possesses the statute requisites of novelty and utility.

McCormick v. Seymour, 2 Blatchf., 240, 243.

And it is submitted that this must be the inquiry in the larger number of cases where the question of sufficiency of invention is raised.

As to the negative rules as to sufficiency of invention, we concede it to be well settled that the improvement claimed must be such as requires something more than the use of ordinary judgment or mechanical skill to devise it; something more than superior excellence in workmanship; that substitution of superior for inferior materials is not invention; nor is a change of the features of a thing; nor is mere aggregation of old devices invention. These and all other established negative rules, applied in this case, upon the evidence, will not exclude the patentability of complainant's invention.

In respect to what constitutes invention, we are content that this case shall be governed by the rules laid down by the most recent and emphatic declarations of this court upon the subject.

Atlantic Works v. Brady, 107 U. S. 192.
Phillips v. Detroit, 111 U. S. 604.

These cases (which were decisions against the patentability of the claimed inventions) assert the rule to be that an alleged improvement is the result of invention when it makes some substantial discovery which makes a step in advance in the particular art, is not a merely trifling device which would naturally occur to any skilled mechanic, and requires some original thought in the inventor.

The conception of appellant, upon the evidence which shows the prior devices, exhibits something more than what would occur spontaneously to any skilled mechanic in the particular art. The evidence shows that honey-sections, made of more than one piece, were known. They were of four pieces, joined at the corners by nails or otherwise, or of two pieces, joined at two corners when bent for use. *Of a one-piece section, except the rude attempts at such, there is not any reliable evidence in the case, before complainant's device.* We shall consider

the evidence as to prior devices more particularly under the next head, as to novelty; but our present point is that if Forncrook's conception is, on the evidence, the working out of the idea of a single blank, adapted to be used immediately by the consumer, and with great advantages over former devices, such as sections of four pieces or two pieces, set up at the manufactory, requiring larger packages when packed for transportation, and liable to breakage and destruction in transportation, such a conception, which united the several features in a single blank, the advantages of which arise out of its singleness, and which is not a mere aggregation or combination, as we shall attempt to show, such a conception is invention within the sense of the patent law, an invention which resulted in a new and useful improvement.

When want of invention can not be determined by the settled negative rules, and in the absence of any definite affirmative statement of what constitutes invention, and when there is doubt upon the question of invention, the fact that the device has gone into general use, and has displaced other devices which had been employed for analagous uses, is sufficient to turn the scale in favor of the existence of invention.

Smith v. The Dental Vulcanite Co., 93 U. S. 495.

So that Justice Nelson's suggestion, *ubi supra*, that the question of invention generally resolves itself into a question of novelty and utility, is approved.

If the inquiry as to invention is considered from this point of view, the evidence is overwhelming that complainant's structure has such advantages in utility that it is almost alone in use in the trade. The testimony of *Thomas G. Newman*, the most competent disinterested witness is, as to the Forncrook sections, that "their value is demonstrated by their driving most other sections out of the trade." No evidence contradicts this statement, and none is attempted by defendant, who shows his assent to it by manufacturing the same section with only such difference as, he claims, protects him from charge of infringement.

We submit that when this question of invention is considered, upon the whole case, there can be no doubt that there was the requisite inventive conception and effort to make the improvement patentable.

(2). *Complainant not inventor.* The contention that complainant was not first inventor (apart from the questions of want of invention

and want of novelty) will not, we infer, be seriously urged upon this record.

If insisted on, it can only be upon a claim that *Geo. B. Lewis*, of the firm of Lewis & Parks, of Watertown, Wisconsin, for whom complainant was working when he made the improvement, contributed to the invention.

Lewis swears that he made some suggestions to complainant as to the improvement. Complainant, in his deposition, flatly contradicts him. It is necessary to examine Lewis' testimony in the light of the fact that his deposition shows him confessing, on cross-examination, most serious and vital mistakes as to dates; that he has been a contestant for this invention before the Patent Office, and that complainant has prevailed at every stage; and that he is shown to have a hostile feeling towards complainant. Upon this point, which is, in effect, a claim that Lewis was the inventor of the improvement, it is necessary to analyze the testimony of Lewis.

Lewis testifies:

That some time in the fall of 1877, Forncrook showed him a blank with grooves, and asked what sort of a section that would make (Record, p. 57, fol. 87.)

That in the fall of 1877, in October, Parks came into the firm. Forncrook was asked if he could devise a machine for making the sections.

The machinery was constructed and the completed section placed on the market some time in December, 1877, though perfected samples were made as early as September, 1877.

Corrects himself (fol. 88), it was in the spring of 1877 that Forncrook showed him samples.

The firm was Lewis & Parks from Oct. 1st, 1877.

Forncrook was their foreman in 1877.

Had a previous conversation with Forncrook, the first, in June, 1876, in relation to making one-piece sections from strawberry-box material (fol. 89.)

Next conversation, November, 1878, witness made suggestions as to form of insets (fol. 89–90).

First saw completed sections in September, 1878, in Lewis & Parks' shop (fol. 91).

After completion of the section, prior to Forncrook's application for a patent, Lewis & Parks made an effort to put them on the market: advertised them, sent them to the Wisconsin state fair, in Sep-

tember, 1877, and to Chicago (fol. 99, 100). Published price lists in fall of 1878, but dated 1879 (fol. 100, 101).

Forncrook knew of all this. Left employ of Lewis & Parks in June, 1878.

Prior to this (June, 1878) there had been some sales—a hundred thousand (fol. 101).

On cross-examination this witness is broken down, and acknowledges a mistake of a year in nearly all his foregoing statements. He testifies—

That the firm of Lewis & Parks was not formed till October 1st, 1878 (fol. 102).

That Forncrook did not leave their employ till a year later.

That the sales were wrongly stated by a year.

That Forncrook first showed him the sections in February or March, 1878 (fol. 106).

That the machinery was not constructed and the completed section placed on the market till November and December, 1878 (fol. 106).

He leaves the matter in utter uncertainty as to the dates of the communications between himself and Forncrook.

He cannot be relied on, therefore, to contradict the testimony of Forncrook (fol. 63) that Lewis had no conversation with him till the completed sections were exhibited to him by Forncrook.

Forncrook testifies positively that Lewis made no suggestions until the completed sections were exhibited: that even then, Lewis' suggestion was directly the reverse of his own testimony (fol. 63).

And against Forncrook's positive statements the uncertain and self-contradictory statements of Lewis cannot establish anything.

Lewis is a witness under the influence of a strong desire to defeat Forncrook's patent. He interfered in the patent office, as his own testimony shows, claiming the invention of the Forncrook section because it was the product of the machinery of Lewis & Parks (fol. 103, 104.)

Forncrook prevailed, and secured his patent. Lewis is clearly a hostile as well as self-contradicted witness.

The suggestions made by Lewis to Forncrook, giving the utmost weight to Lewis' testimony, even if uncontradicted, could not affect the validity of Forncrook's patent.

The established rule is, that a suggestion made to a patentee will not render his patent invalid, unless it enables him to construct the thing patented without the exercise of inventive thought on his part. And so of a suggestion made in the course of the patentee's experiments and in aid thereof. If, after all the suggestions, there was something left for him to devise and work out by his own skill and ingenuity, in order to complete the arrangement, he is to be regarded as the first inventor.

Alden v. Dewey, 1 Story, 336.
Pitts v. Hall, 2 Blatch. 234.
Agawam Co. v. Jordan, 7 Wall. 602.

See also—

Collar v. Van Deusen, 23 Wall. 562.

Under these rules Lewis' testimony gives no support to *his* claim to this invention.

IV.

WANT OF NOVELTY.

The principal contention of the defendant, upon this record, is upon this ground. His answer, conforming to the rule of pleading that all allegations as to want of novelty must be specific, so as to show names of and residences of persons alleged to have prior knowledge of the thing patented, and where and by whom used, sets up prior knowledge and use by *nine* persons. (Record, p. 7, paragraph 8, of answer.) Of the persons named in the answer not even an attempt is made by defendant to show knowledge, except as to *two*, Alex. Fiddes, at Centralia, Ill., in 1873, and H. W. Hutchins, of Livermore Falls, Me., in 1873.

And upon the evidence offered in support of this allegation, it was decided by the Circuit Court that Forncrook's invention was anticipated. (Record, pp. 13, 14, fol. 23, 24.)

The burden of proof is on the defendant, alleging want of novelty, to establish this defence. For the grant of letters patent is *prima facie* evidence that the patentee is the first inventor of the device described in the letters patent and of its novelty.

Smith v. Goodyear Co., 93 U. S. 486.
Lehnbeuter v. Holthaus, 105 U. S. 94.

And not only is the burden of proof to make good this defence upon the party setting it up, but every reasonable doubt must be resolved against him.

Coffin & Ogden, 18 Wall, 120, 124.
Cantreli v. Wallack, 117 U. S., 695.

In the light of these rules we will examine the only alleged anticipations relied upon by defendant.

1. *The Fiddes Devices.—Alexander Fiddes* (Record, p. 42, fol. 67) testifies that he is a farmer and bee-keeper, residing in Washington Co., Ill. Has been handling bees about twenty-three years. Has used sectional honey-frames about twelve years (previous to 1883.) Has used four-piece sections and prize sections and one-piece sections.

First used one-piece sections in 1873. Made them in 1872.

Produces model (A. I. Root's Exh. No. 18). This is made of one piece of wood, cut with a saw up the corners, folded and nailed at the fourth corner. Has notches which he calls bee-entrances (fol. 68). Shape of folding-grooves, does not know hardly what they are. Three corners cut with the saw half-way through.

This was made in winter of '72, for the honey season of '73. Used them in the summer.

In his possession since '72. No change in it.

Produces model (fol. 69), (A. I. Root's Exh. No. 19), constructed of one piece of wood, corners cut out with saw, edges cut down with a knife when made by hand. Side insets for bee entrances.

Produces (fol. 69, 70) other models (A. I. Root's Exh. 20, 21, 22, 23). Has used them since 1872–'73.

Has not made any of first form since 1876, but has made of Exh. 23 since 1876.

Wrote a description, and published it in March, '76, in Root's "Gleanings in Bee Culture" (fol. 71–72). (Coltren - fol. 125 - Root's Exh. 13.)

In 1874–5, made and sold one-piece sections like Exh. 22, to Mrs. Coltren (fol. 72).

On cross-examination he says he never sold any except Exh. 22 to Mrs. Coltren (fol. 73), all made by hand.

Since 1876 has ceased to use all except Exh. 23 (fol. 74), made from strawberry-box materials.

This most available (fol. 76).

Never published anything except letter dated March, '76 (fol. 74).

All folding grooves made with saw and knife, except. Exh. 23, that

made with knife only (fol. 74). Uncertain whether on inside or outside.

Then swears he did write another letter (fol. 75), which was published. (Forncrook's Exh. 6, p. 80–81, fol. 123–4.) Letter dated May 11, 1883.

Prefers that Forncrook should be beaten in this suit (fol. 76.)

We submit that upon this testimony all the devices made by Fiddes show that they were only clumsy attempts to work out a vague idea, and we are content to rest upon a comparison of these exhibits with the perfected structure of Forncrook. It is not quite certain upon Fiddes' testimony whether the cuttings at the corners so as to allow the bending of the frames, was on the inside or the outside of the box. This is an important feature, in reference to the strength of the structure, and its quick use by the consumer. Exh. 20 contains a bee entrance made by a hole in one side. This is not a side inset. All of them show an incomplete conception rudely worked out. But none show the substantial identity which the law requires, between what is claimed as an anticipation of the patent and the perfected improvement of Forncrook, embodying in a single structure all features desirable for the use intended. Rude and incomplete anticipations can never establish want of novelty.

In order to defeat a patent for want of novelty, the anticipating thing must be very nearly identical with that covered by the patent. If a marked and apparently important difference exists between the two, the defence will fail.

"If the thing were embryotic or inchoate; if it rested in speculation or experiment; if the process for its development had failed to reach the point of consummation, it cannot avail to defeat a patent founded upon a discovery or invention which was completed, while in the other case there was only progress, however near that progress may have approximated to the end in view. The law requires not conjecture, but certainty. * * The conception must have been clothed in substantial forms which demonstrate its practical efficiency and utility."

Coffin v. Ogden, 18 Wall, 124.

But Fiddes himself shows that his devices were not practical and useful. Since 1876 he made none of the earlier sections. His letter of March '76 (Root's Exh. 13, Record p. 82, fol. 125), shows that he then used sections, as he testified, made of peach-box and strawberry-

box material, bent and scored, no one knows how, as he vaguely describes them.

Why had he given up the earlier sections, if practical and useful? That he gave them up is evidence that they were not practical, because rude, heavy, clumsy. If not practical, they were not anticipations.

Then, on his testimony, the practical section relied on is the one described in his letter, of thin material, and clearly not an anticipation of the Forncrook section. And yet this device was regarded by Fiddes himself as so much superior to his earlier attempts as to merit public notice.

But Fiddes wrote another letter, which was published (Forncrook's Exh. 6, p. 80, fol. 123, 124), dated May 11, 1883.

This is accompanied by drawings of his devices made in 1873, 1876, and 1877. He numbers them 1, 2, 3.

This letter contradicts his testimony as to the dates of his devices.

In his testimony he says that A. I. Root's Exhibit No. 20 was made in 1873 (fol. 70).

This is No. 2 in the drawing accompanying the letter, and is the device with the bee entrance in the centre of the bottom.

In the letter he says this was used for *one year* prior to 1876 (fol. 123).

Plainly, Fiddes' memory is not to be relied on.

Besides, when produced, Exhibit 20 appeared to be nailed at two corners (fol. 77).

Was it not originally a two-piece section?

The whole letter describes sections made of strawberry-box materials, and leaves his testimony as to all the devices made by him vague and uncertain.

2. The Hutchins Patent—(Supplementary Record, pp. 1 to 5.)—This is relied on as an anticipation, and is set up in the answer in two aspects: as a description in a patent, and as prior knowledge (Record, p. 7, paragraphs 7 and 8, of answer). It was the chief ground of the decision of the Circuit Court, and, probably, the main reliance of the defendant here.

This patent is, primarily, for a machine; not for a honey-section, or box of any kind. Let us examine the patent.

The first, second and third claims are for combinations of parts of the mechanism. The fourth and last clause is for the method of manufacturing wooden boxes, by tonguing, grooving and scoring the

wood to form the sides thereof before the same is separated from the log, and then cutting the said sides from a rotating log of wood, then bending the same into proper form, &c.

This piece of wood to form the side of the box is the product of the machine claimed in the other claims of the patent. The piece for the box is cut from the rotating log of wood—that is, the log is rotated and the board cut off as the log rotates. If this cut is made on a dry log, the piece cut off will check or crack longitudinally as it is cut off. If the log is steamed before it is cut off, the board or veneer will not check or split if it is cut very thin, but if it is of any thickness it will even then check or split. This piece thus cut from the rotating log has to be flattened out before it can be used. It is evident that the inner face has a less surface than the outer face, and to flatten out the board the inner face must stretch until it is of equal width as the outer face, or the outer face must contract to the width of the inner face. The inner face, instead of stretching, will crack or split, and this will damage or destroy the box made from the board or piece of wood cut from the rotating log. The grooves cut in the board will weaken it and render the flattening process very difficult, if not impossible. There is a great liability of breaking at the point where the grooves are cut, and still more of splitting.

The thicker the board the greater the split, and the thinner the board or veneer the less liable to split. But if the veneer is so thin that it will flatten out without splitting, then the grooves will so weaken the veneer that it will break at these points.

It is evident that this sheet or piece of wood, cut from the rotating log, must necessarily be a curved surface as it comes from the log, but there is nothing said about that in the patent, nor about flattening it out before using it. On the contrary, it is assumed that it is ready and fit for use, for the patentee directs how it is to be bent and fastened together at the ends and the bottom inserted to form the box. Thus out of a board having a curved or cylindrical surface he makes, by a turn of the pen, the flat sides of a box.

The drawing shows a flat board with grooves cut in it to form the angles of the box, but such a board is not the product of the machine, nor is it described in the patent, and should be therefore considered as merely a drawing without a description, and such a drawing has never been held sufficient by itself to defeat a patent.

It is true that the patentee describes how the log is to be grooved and the piece cut off, but it is plain that he never made or operated

such a machine before he procured his patent, or the difficulty and trouble of flattening the piece cut off would have been perceived and provided for; and it is very doubtful if he ever made or used one after he obtained his patent, for the same reason. Therefore, if any weight is given to this patent as an anticipation of the complainant's patent, it will rest on an undescribed drawing, for the drawing is not a representation of the product of the machine in the state it came from the machine.

Now, we submit, that when a patent is relied on as anticipation, the rule that the production of a patent which describes substantially the same thing as the later invention claimed, is sufficient to negative novelty, does not apply where the anticipating thing relied on is only the *product* of a prior machine patented.

In such case, the rule as to burden of proof of want of novelty, clearly requires affirmative evidence of the practicability and usefulness of the *product*. That is not patented. It is not described, save by a drawing which shows something not produced by the machine, and that something not practical, if mathematical necessity and the laws of nature are regarded.

It is necessary to allude to other evidence as to want of novelty.

Mrs. E. H. Coltren, Centralia, Ill. (Record, pp. 50 to 53). This person is not mentioned in the allegation of persons who had prior knowledge, and her deposition is not therefore strictly admissible as to want of novelty. She is mentioned in paragraph 9 of the answer, which sets up public use more than two years before application, etc. This defence will be considered below. But we are quite willing that Mrs. Coltren's deposition should be examined, as it shows that Fiddes' sections (Exhibit No. 25), which he sold to her, his neighbor, were too heavy and clumsy, and abandoned by her; and she then made for herself some rude sections, fastened with tacks, and otherwise so inferior to the Forncrook sections as to be no anticipations in any legal sense.

G. B. Lewis (Record, pp. 56 to 77). This witness is not named in the answer as among those who had prior knowledge, and as negativing novelty in our invention. But in paragraph 10 of the answer, alleging abandonment and dedication to the public, it is alleged that our invention was "in public use and on public sale at the manufactory of Lewis & Parks, Watertown, Wisconsin, and elsewhere, prior to

his application for a patent." But the deposition of Lewis, admissible as to want of invention, may be considered as to want of novelty. All Lewis dares to testify to, is the vague statement that he had known one-piece sections for 10 or 12 years. He is so vague and evasive, so evidently controlled by his hostility to complainant, on account of his failure to deprive complainant of the invention, before the Patent Office, that we submit his evidence cannot be held to contribute to establish a defence which, as against a patent, must be made out beyond a reasonable doubt.

Elvin Armstrong (Record, pp. 56–57). The deposition of Armstrong ought not to be considered, as he is not mentioned in the answer as having prior knowledge. But, if considered, the exhibit he produces and testifies to is a four-piece section.

Thos. G. Newman (Record, pp. 32 to 37). The deposition of this witness, taken for complainant, may be relied on by defendant as showing prior one-piece sections. But an examination of it shows, that a man thoroughly acquainted with the art, testifies, in effect, that Forncrook's was the first one-piece section he knew. As to the prior devices, he testifies that samples were sent him, *looking to* the improvement, such as the *Southard* section, which was a *five*-piece section; the *Fiddes*, which we have considered; the *Delzel*, nailed at the corners and with the cut, made for bending, on the outside of the box, and made for use with glass (an important difference); the *Cotton* section, which were two-piece sections, and the *Gilbert*, which was like the *Delzel*. The witness says that there were "simply developments in the invention;" that none of them became known in the trade, except the Forncrook section, and testifies emphatically as to the superiority of the latter, giving ample reasons for his opinion.

This is the evidence relied on to show want of novelty in our invention. We submit, with confidence, that it comes far short of satisfying the legal rule that want of novelty must be established beyond a reasonable doubt; far short of satisfying even a less stringent rule. We submit that our proposition is established that *of a one-piece section, except rude attempts at such, there is no reliable evidence, before complainants' device.* None of the devices in proof, claimed to be anticipations, are, in any legal sense, *substantially identical* with our invention. It is unnecessary to suggest that two-piece, four-piece, or five-piece sections cannot be anticipations, the essential claim for our invention being that it is a one-piece section.

V.

PUBLIC USE MORE THAN TWO YEARS BEFORE APPLICATION—CONSTRUCTIVE ABANDONMENT.

The defendant attempts to set up, in paragraph 9 of the answer (Record, pp. 7–8), public use for more than two years before appellant's application for a patent. But his allegations are of persons and places substantially the same as in the preceding paragraph, which alleges want of novelty. So that he seems to rely on proof of use of alleged prior devices, if sufficient to show want of novelty, as establishing the constructive abandonment which is the statutory defence.

We submit that this is not sufficient upon this part of the case.

In order to defeat appellant's patent, upon this ground, public use, for more than two years before application, of defendant's own invention by persons named, must be alleged and proved. No public use or sales whatever, of this, are shown, which support this allegation.

See—

Consol. Fruit Jar Co. v. Wright, 94 U. S. 94.
Egbert v. Lippmann, 104 U. S. 333.
Hall v. MacNeal, 107 U. S. 90.

And certainly, if the proof as to previous devices fails to negative novelty, their use and sale cannot establish this defence of constructive abandonment.

VI.

ACTUAL ABANDONMENT.

This defence is set up in paragraph 10 of the answer (Record, p. 8), and it is alleged that prior to Forncrook's application for a patent, his invention was by him abandoned to the public and dedicated by him to the public, and was, with his consent and allowance, in public use and on sale at the manufacturing establishment of Lewis & Parks, in Watertown, Wisconsin, and elsewhere.

No proof is attempted to be given of this allegation, except of sales to the trade in 1878. This is testified to by both Lewis and Forncrook.

Lewis says, finally, that this was in November or December, 1878 (Record, p. 17, fol. 106). Forncrook says, in the fall of 1878 (Record, p. 40, fol. 65).

Beyond proof of these sales, no declaration or act of Forncrook, showing abandonment, or any purpose to abandon, is attempted.

This is clearly insufficient.

Actual abandonment is the result of intention. Such intention must be proved. It is not shown by a mere sale. Every reasonable doubt upon such a question is to be solved in favor of the patent. The law does not favor forfeiture. Use or sale must be accompanied by some acts or declarations going to establish the intention of the patentee to give to the public the benefit of his improvement, as a gratuity.

Pitts v. Hall, 2 Blatchf. 238.
McCormick v. Seymour, 2 Blatchf. 256.
Ruwell & Irwin Man. Co. v. Mallory, 10 Blatchf. 141, 151.

VII.

DENIAL OF INFRINGEMENT.

This defence, alleged in paragraph 11 of the answer (Record, p. 8), denies infringement on the ground that the honey-section made by defendant is different in kind and construction, and is made by a different process, and is of a different method and principle from that described in appellant's patent.

The contention will be, that appellant's patent is for a combination, or is a mere aggregation of prior known features of such a device, and that, as defendant's manufacture omits one element in the combination, he does not infringe.

The appellant's proof of sales by defendant of honey-sections identical with the patented invention, except as to the longitudinal groove, is shown by the deposition of *Alfred H. Newman* (Record, pp. 17 to 22). He purchased five hundred sections of defendant in November, 1882 (fol. 30–32—Forncrook's Exhibit 3). This witness also testifies to the superiority, and larger sales of Forncrook sections on account of their superiority (fol. 35, 36).

It will not be denied that the defendant's making the transverse groove rectangular instead of V shaped, is the use of an equivalent.

The only difference, then, between the appellants' device and those made and sold by defendant is the absence from the latter of the longitudinal groove. (See testimony of *M. E. Dayton*, Record, p. 24, fol. 39–48.)

Therefore, defendant rests his claim for protection of his manufacture on his omission of the longitudinal groove, designed as a guide groove, or point of attachment for the honey-comb, when the bees begin to build in the frame.

We submit that without entering on the inquiry whether the patent is one of a combination structure, coming within the rule of law invoked by defendant, there are two sufficient answers to his contention, even conceding, for the sake of argument, that our invention is such as he claims.

1. It is well-settled that no substitution of an equivalent for any element or ingredient of a combination covered by any claim of a patent can avert a charge of infringement of that claim.

Gill v. Wells, 22 Wall., 1.
Imhaueser v. Buerk, 101 U. S., 656.

Combination patents would be generally valueless in the absence of a right to equivalents, for few combinations now exist, or can hereafter be made, which do not contain at least one element, an efficient substitute for which could not be suggested by any person skilled in the art.

The rule of the cases last cited is that if the ingredient substituted for the one withdrawn performs the same function as the other, and was well known at the date of the patent, the claim of infringement is not averted by use of the substituted element.

Two inventions are substantially alike when they perform substantially the same thing in substantially the same way.

Machine Co. v. Murphy, 97 U. S., 120.
Cantrell v. Wallack, 117 U. S., 695.

Now, it is clear that the honey-sections made by defendant, which omit the longitudinal groove, must contemplate the use of some device for a comb-foundation. *Dayton's* testimony (fol. 42) shows that the comb-foundation can be fastened to the section by various other means.

And upon the whole case it is clear that the defendant's sections are to be used with the comb-foundation made by planting pieces of wax upon the upper side of the section, which, as *Fiddes'* testimony shows, can perform the same function, and was well known at the date of the patent.

To permit such an application of the rule that omission of one element of combination protects against charge of infringement, would, we submit, be to encourage violation of the patent laws.

2. It is equally well-settled that by the manufacture and sale of parts of a patented invention, where it is intended that the purchaser shall supply the omitted parts, there is an infringement.

Richardson v. Noyes, 2 Bann. & Ard., 398.
Wallace & Sons v. Holmes et al., 5 Fisher Pat. Cas. 37.

Here it is clear that defendant makes and sells with the intent that the purchaser shall supply the omitted longitudinal groove with some equivalent device, and it is plain this must be done to make defendant's section capable of use.

3. But we are entirely willing to meet the question whether ours is a combination patent within the rule of law under which the defendant seeks protection.

In the sense of the patent law it is not a "combination" nor is it a mere "aggregation" of old devices.

There are two classes of combinations recognized by the patent laws, which are properly the subject of a patent. The first is where all the parts were before known, and where the sole merit of the invention consists in such an arrangement of them as to produce new and useful results, or where by adapting parts of a machine which are old, an inventor has succeeded in making such an arrangement of them as to produce a result never before obtained, and has, in that point of view, the merit of originality. The second class is where some of the parts or elements of the combination are new, and their invention claimed, but where they are used in combination with parts or elements known before.

Lee v. Blandy, 2 Fish. Pat. Cas. 93.

And a combination patent is one in which all the elements enter into it so as to qualify every other. It must either form a new machine of distinct character and function, or produce a result due to the joint and co-operating action of all the elements, and which is not the mere adding together of separate contributions.

Hailes v. Van Wormer, 20 Wall., 368.
Pickering v. McCullough, 104 U. S., 310.
Reckendorfer v. Faber, 92 U. S., 357.
Loom Co. v. Higgins, 105 U. S., 591.
Gage v. Herring, 107 U. S., 640.

And these cases show what is aggregation. A mere assemblage of separate features in juxtaposition is an aggregation, and not patentable. But uniting separate features in a unity which produces a new and useful result, is more than aggregation.

The cases where the rules as to combination patents are established are, almost without exception, those where the express claim of the patent is for a combination.

Now, the decision of the question whether our patent is for a combination, must depend upon the construction of the claim.

It is not *expressly* for a combination; on the contrary, the literal claim is for "a new article of manufacture, a blank for honey-frames formed of a single piece of wood, *having* transverse angular grooves," etc. Here is a claim, literally read, for a single thing having certain described features, not a claim for a combination in a single thing of certain co-operating parts.

If, however, we apply construction to this language, we submit that it can not be held to be a claim for a combination.

Combination, according to the cases above cited, are assemblages or unions of separate elements, to produce a new result. In most cases they unite features of machinery which are themselves capable of independent use and action. There is no unity of the several parts, except a mere mechanical unity, and the result is in the unity of action of one structure formed of separate co-operating parts.

So a structure may be a mere aggregation of old devices, which is not invention. But a new article of manufacture, which produces a new and useful result, may unite old devices into singleness or unity, and the invention is in the discovery that such unity is productive of the new and useful result. But such a structure is no more a "com-

bination" or "aggregation," in the sense of the patent law, than a single invention of a thing out of natural materials, like the fibres of wood or particles of iron, can be called a combination or aggregation.

The claim of Forncrook is for the blank as a whole, adapted to be bent into form so as to constitute a complete honey-section. The invention consists in the completed article, including its general dimensions, outline of blank, location and arrangement of transverse grooves, and all the features which go to make up the completed article.

This is not combination. It is a claim for a single thing, the conception of which single thing, uniting the several features in such a way as to be best adapted for the purpose intended, constitutes the invention.

All inventions embracing more than one part are, in a general sense, "combinations" or "aggregations." But all are not such in the restricted sense of the patent law; or in the sense which defendant urges here. By grouping together features known before, in a single entity which has superior value by reason of its union of these elements in a new and useful single article in the art to which it belongs, Forncrook has exercised invention, but his claim is not for a combination of the old features: It is not such, any more than the claim of any single article of manufacture which describes the materials of which it is composed, is a claim for the "combination" of such materials.

We submit that no one of the defences alleged is sustained, and that the decree should be reversed, and the validity of appellant's patent established.

WILLIAM P. WELLS,

Of Counsel for Appellant.

DETROIT, March, 1888.

24-146

SUPREME COURT

OF THE UNITED STATES.

OCTOBER TERM, 1887.

No. 225.

JAMES FORNCROOK,
Appellant.

vs.

AMOS I. ROOT.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF OHIO.

BRIEF FOR APPELLEE.

M. D. LEGGETT,
J. A. OSBORNE,
Solicitors for Appellee.

HATCH PRINTING CO., CLEVELAND, O.

IN THE SUPREME COURT

OF THE UNITED STATES.

JAMES FORNCROOK,
Appellant,

vs.

AMOS I. ROOT.

No. 225.
In Equity.

BRIEF FOR APPELLEE.

This cause comes up from the United States Circuit Court for the Northern District of Ohio, where it was heard by Justice Matthews.

The defendant is charged by the bill of complaint with having infringed United States Letters Patent, No. 243,674, of date June 28th, 1881, and issued to the appellant, James Forncrook, for a Sectional Honey Frame.

The application for this patent was filed in the Patent Office May 13, 1879.

DEFENSE.

The defendant in his answer:

1. Denies infringement.

2. Avers that said patent is invalid for want of novelty.

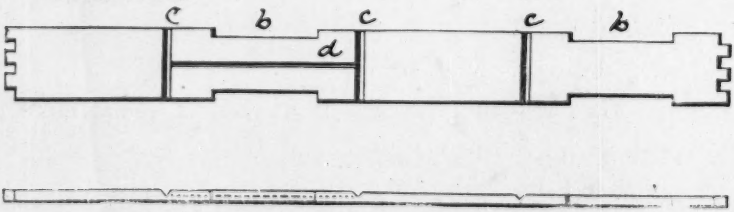
I.

There is no proof that the defendant ever infringed the patent in suit.

The patent is for a "blank" for a honey frame formed of a single piece of wood, and reads as follows:

"As a new article of manufacture, a blank for honey frames formed of a single piece of wood, having transverse angular grooves *c*, longitudinal groove *d*, and recesses *b*, all arranged in the manner shown and described."

The following cut is from the drawings attached to and made part of the patent and shows exactly what the claim means.



We understand that this claim can be infringed only by a device having all the elements enumerated in the claim.

The transverse angular grooves *c*, the groove *d*, and the recesses *b* are all described with the same particularity and as if of equal importance, and all are specified as parts of the honey-frame "blank" claimed. There is no proof whatever that the defendant ever made, sold, or used a honey-frame "blank" having the "groove *d*." As this element was not found in the defendant's device, they attempted to prove that the "groove *d*" was not an essential element of the invention (Record, p. 24). But this is a question of law and not of evidence. The patentee has made this element of his claim just as important as any other in his drawings, specifiations and claim. He has not sworn that he invented any "blank" without the "groove *d*." He has limited himself in his description and claim to a "blank" having such a groove, and we do not understand that it is the office of the court to give him a patent for a "blank" without the "groove *d*." The defendant never made, sold, or used a "blank" having the groove *d* or any substitute for such groove, therefore, we submit the defendant is not guilty of infringing the appellant's patent.

II.

The patent in suit is void for want of novelty.

The application for the patent was filed May 13th, 1879 (Rec. p. 78). Forncrook, in his testimony, carries his invention back to late spring or early summer of 1877 (Rec. p. 58).

Defendant's witness, Alexander Fides (Rec. p. 42), testifies that he made honey-frames from such "blanks," excepting the "groove *d*," in 1872, and used them in 1883 at Centralia, Illinois. He presents one of these frames in evidence, marked "A. I. Root's Exhibit No. 18," and says he made it in 1872 and used it in 1883. This exhibit displays every element of the Forncrook patent except "groove *d*"—every element found in the alleged infringing device made by the defendant.

This identical "Exhibit, No. 18," was in use, as these honey-frames are used as long ago as 1873 (Rec. pp. 42, 43). Root's Exhibits 19, 20, 21, 22, 23 and 24, are also introduced, all made in 1872 and 1873, and all used, several of them, for several years (Rec. pp. 43, 44, 45).

In 1874 or 75 Mr. Fides made and sold to Mrs. Coltrin 100 one piece honey sections like "Root's Exhibit 22" (Rec. p. 46). Fides has used boxes made of single pieces of wood, exactly as described and claimed in the patent in suit except "longitudinal groove *d*," since the summer of 1873 (Rec. p. 47). He also wrote an article for "Gleanings in Bee Culture," in which he described this one piece honey-frame. This was published in March, 1876 (Rec. pp. 47, 48 and 82).

Electa H. Coltrin bought of Alexander Fides in 1875 100 one-piece honey-frames like "Root's Exhibit No. 25," which exhibit is one of the lot of 100. She has used

these sections and others like them, exclusively since 1875 (Rec. 52, 53).

George B. Lewis (Rec. 62, 63, 64), shows that every element of the Forncrook honey-frame was old for the same indentical use.

The defendants also introduced in testimony United States Letters Patent No. 157,473, of date December 8, 1874, shown in supplement to the record. This patent is for a machine to make one-piece sides for boxes, and describes in the specification the same one-piece section as shown in the Forncrook Patent in suit.

But the Solicitor for appellant may insist, as below, that the Fides sections do not anticipate the patent, because they are made up sections, while the patent is for "a *blank* for honey-frame having transverse angular grooves *c*, longitudinal groove *d*, and recess *b*," as an article of manufacture.

Inspection of the Fides honey-frames among the exhibits, shows beyond question that just such blanks (minus "the longitudinal groove *d*"), were made before the formation of the sections. The testimony of Mr. Fides is positive on the same point. If the boxes or frames were made of such blanks in 1872, then the blanks existed as blanks in 1872, five years before Forncrook pretends to have conceived his invention. It is true Fides made them simply for his own use, except 100 which he made for one of his neighbors.

I take it, however, that that can make no possible difference. To sustain a patent, the patentee must have been the first inventor. I admit that a secret use of prior date, or a merely experimental use would not defeat the patent. But Fides put it into public use, the same as all such frames are used. He put them into his own hives, or on them, and when filled, sold them with the enclosed honey, or used the honey from them himself and then used the frames over again. These blanks, such as the Forncrook Patent describes and claims (with the exception named) are shown to have been made as long ago as 1872, and the frames made from these blanks put into use in 1873, and have been in use ever since.

The same blank is also shown and described in the Hutchins patent of 1874.

SUMMING UP.

1. *The defendant does not infringe Appellant's Patent*, because he does not use "the longitudinal groove *d*," which is an element of the only claim of the patent, and the patentee makes no pretense of having invented any blank without such longitudinal groove.

2. If "the longitudinal groove *d*" is an unimportant element of the claim and may be omitted in construing the patent, then the invention of the patent is

fully anticipated by the Fides honey-frames and by the Hutchins patent and is void.

Respectfully submitted,

M. D. LEGGETT,

J. A. OSBORNE,

Solicitors for Defendant.

124-176

SUPREME COURT

OF THE UNITED STATES.

OCTOBER TERM, 1887.

No. 225.

JAMES FORNCROOK

Appellant,

vs.

AMOS I. ROOT.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF OHIO.

SUPPLEMENTAL BRIEF FOR APPELLEE.

M. D. LEGGETT,
J. A. OSBORNE,
Solicitors for Appellee.

BUEL & ROBERTS, CLEVELAND, O.

IN THE SUPREME COURT

OF THE UNITED STATES.

JAMES FORNCROOK,
Appellant,

vs.

AMOS I. ROOT.

No. 225.
In Equity.

SUPPLEMENTAL BRIEF FOR APPELLEE.

For a statement of our case, we refer to our original brief filed herein.

The evidence establishes beyond question that *all* the features of appellant's device, to-wit :

A blank formed of a single piece of wood (A), having transverse angular grooves (*c*) to form the corners, and dentated ends (*a*);

Recesses (*b*) for the passage of the bees; and the

Longitudinal groove (*d*) for fastening the foundation starter or guide strip;

Were old and long in use before his alleged invention. He claims May, 1878, as the date of his invention. See Rec. pp. 38-9.

That the blank (*A*) was old:

See letters patent No. 157,473, issued to Louise Hutchins as the assignee of H. Wesley Hutchins, December 8, 1874.

Letters patent No. 157,473, issued October 25, 1870, to William Gilbert, assignor to N. K. Fairbanks. (This patent was not pleaded or referred to in the case below, and is now cited to further inform the court of the "state of the art," if it is considered proper for that purpose. It is not offered as a defense. Notice of our intention to make this citation was served on complainant's counsel on Jan. 14, 1888.)

Testimony of appellant's expert, Mr. Dayton, Record p. 28, third question and answer from the top of the page.

That the *recesses*, or insets (*b*) for the passage of bees were old:

See testimony of appellant's witness, Dayton, Rec. p. 28, fifth question and answer from top of page; also, appellant's witness Newman, Rec. p. 37, last question and answer of cross-examination, and question 34, page 59; and defendant's witness Armstrong, p. 55, questions 4 and 5 and answers. Lewis dep., p. 59, question 34.

That the longitudinal *groove* (*d*) was old:

See Lewis dep., Rec. p. 59, question 35; complainant's

witness Newman, p. 20, third question from top of page. The appellant in this case does not claim to be the first who used the longitudinal groove (*d*). See Dayton's deposition, Rec. p. 25, answer to fifth question on the page.

Further, as to all the features of appellant's device being old at the date of his alleged invention, see deposition of appellant's expert witness, Dayton, Rec. p. 28, question and answer six from top of page; Fiddes' deposition, pp. 42-50; Mrs. Coulton's deposition, pp. 51 and 52; Lewis' deposition, Rec. p. 62, question 61.

None of the features found in appellant's device perform any different functions from what they did in earlier honey-frames, and none of them perform any *joint* functions. See testimony of appellant's expert witness, Dayton, Rec. p. 31; also, deposition of Lewis, Rec. pp. 63, 65.

IT IS A MERE AGGREGATION.

All that the plaintiff has done is to bring together in a single section, different features which were before scattered through several honey-sections. These several features, when thus brought together, do not perform any functions which they did not perform in former sections; and neither all of them together, nor any part of them, perform any *joint* function. It is a mere aggregation of devices, and cannot be considered an invention.—Curtis on Patents, Sec. 111, c; Walker on Patents, Sec. 32; Hailes v. Van Wormer, 20 Wallace, 353, 354, 368; Reckendorfer v. Faber, 92 U. S., 347, 357.

Justice Matthews in pronouncing the opinion of the court in Pickering v. McCullough (104 U. S., 310, 318) said: "In a patentable combination of old elements, all the constituents must so enter into it that each qualifies every other; to draw an illustration from another branch of the law, they must be joint tenants of the domain of invention, seized each of every part, *per my et par tout*, and not mere tenants in common, with separate interests and estates. It must form either a new machine (device) of a distinct character and function, or produce a result due to the joint and co-operating action of all the elements, and which is not the mere bringing together of separate contributions."

In the light of this opinion, and of the facts in this case, the complainant's device cannot be considered an invention. The plaintiff admits that the different features of his device perform no functions but what were performed by them in other sections theretofore made, and the evidence shows that there is no dependent co-operation existing between them. The patentee has "merely added together separate contributions."

IS IT A COMBINATION?

While we urge that it is a "mere aggregation," we think the most liberal construction the court can give the patent is, that it is for a combination. In determining whether a patent is for a distinct invention, or for a combination, no general rule can be laid down for guidance in questions of this kind, depending exclusively on the particular facts of each case. "There is, however, one circumstance that will always be decisive in con-

struing a patent against a claim for the several things described in the specification, and that is, that one or more of them are not new. If this turns out to be the case, then the question will be, whether the patent can be sustained for the combination." —Curtis on Pat., Sec. 249 ; Neilson v. Hartford, 1 Webs. Pat. Cas. 317.

As all the features of complainant's device are old, his patent cannot be sustained for a distinct invention ; and it must be sustained for the combination, if it can be sustained at all.

If the court should hold that the complainant's manufacture is more than a "mere aggregation," then the question will arise,

DOES THE DEFENDANT INFRINGE ?

It is conceded that the defendant has never made any sections with the longitudinal groove (*d*) in them. To this objection the appellant says, *first*, that this groove is immaterial ; *second*, that if the defendant leaves out the groove, expecting his customers to supply an "equivalent," he can not thus avoid the plaintiff's patent, and he is guilty of infringing.

To the first proposition we say, that the patentee, by the restricted form of his claim, made the groove (*d*) a material part of his device, and the court cannot declare that it is immaterial. —U. S. Rev. Stat., Sec. 4888 ; Water-meter Co. v. Desper, 101 U. S., 332, 337; Gage v. Herring, 107 U. S., 640, 648. (See claim of patentee.)

The second proposition we concede to be good law; but as the manufacture of the defendant does not contemplate the use